

irEAs and clinical benefit. This may be due to the limited sample size.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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**Conflict of interest** No conflict of interest

#### 4CPS-167 SODIUM AND MAGNESIUM ALTERATIONS IN THE CRITICAL PATIENT WITH SARS-COV-2 AND PARENTERAL NUTRITION

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**Background and importance** Severe SARS-CoV-2 infection requiring management in the critical care unit (CCU) involves long hospital stays with the need for artificial nutritional support and sometimes, depending on the clinical course, parenteral nutrition (PN).

**Aim and objectives** The aim of this study was to analyse sodium and magnesium electrolyte disturbances associated with mechanical ventilation in critically ill patients with COVID-19 requiring PN.

**Material and methods** Retrospective observational study including 50 patients with SARS-CoV-2 admitted to CCU for 4 months (January–April 2021) who required PN.

We analysed the variables of sex and age and the analytical values of sodium and magnesium during PN supplementation, as well as the contribution of these ions during PN supplementation. Na and Mg ions were not supplemented in PN, in patients with high levels.

**Results** Age: average 67 years. Sex: 62% male; 38% female. Died: 54%. The results obtained are shown in table 1.

46% of patients had hypermagnesaemia at the start of PN, and about 30% started with hypernatraemia; in both cases it was maintained throughout the period of PN.

Of the total number of patients, 5 developed hypermagnesaemia and 3 hypernatraemia during PN supplementation

**Conclusion and relevance** Critically ill patients with SARS-CoV-2 had a high percentage of sodium and magnesium levels, 32% and 46%, respectively, at the time of starting PN, mainly associated with the use of mechanical ventilation. These alterations continued during PN supplementation in most cases.

**Abstract 4CPS-167 Table 1** Sodium and magnesium alterations, before and during the PN supplementation

	Na (meq/L)	N° patients (%)	Mg (mg/dL)	N° patients (%)
<b>Before NP</b>	↑ 150,3 (145-165)	16 (32)	↑ 2,5 (2,2-3,4)	23 (46)
	↓ 134	1 (2)	↓	0
	normal	33 (66)	normal	27 (54)
<b>During NP</b>	↑ 150,7 (146-159)	15 (30)	↑ 2,4 (2,2-2,8)	24 (48)
	↓ 132	1 (2)	↓ 1,4	1 (2)
	normal	34 (68)	normal	25 (50)

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of interest** No conflict of interest

#### 4CPS-170 REVIEW OF NEW BIOMARKERS THAT PREDICT THE PHARMACOKINETICS OF BIOLOGIC DRUGS IN INFLAMMATORY BOWEL DISEASE

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**Background and importance** Adalimumab is an anti-TNF $\alpha$  monoclonal antibody used in inflammatory bowel disease (IBD). Its efficacy can benefit from therapeutic drug monitoring (TDM). Certain biomarkers can be useful in future pharmacokinetics adjustment model designs.

**Aim and objectives** To study the correlation between plasmatic concentrations of adalimumab and the plasmatic concentrations (Cp) of prealbumin and albumin in patients with IBD.

**Material and methods** An observational, retrospective study was carried out from September 2020 to September 2021.

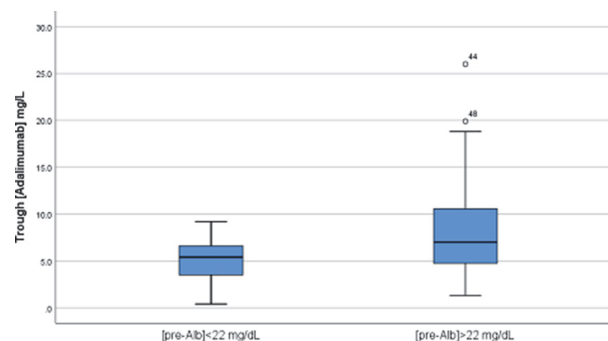
**Inclusion criteria:** (1) patients older than 18 years with diagnosis of IBD (Crohn's disease or ulcerative colitis); (2) patients receiving treatment with adalimumab maintenance therapy; and (3) having a trough Cp of adalimumab, albumin and prealbumin obtained the same day.

**Exclusion criterion:** (1) the presence of anti-adalimumab antibodies.

The following variables were collected: gender, age, diagnosis, adalimumab trough concentration, albumin and prealbumin. The analytical determinations of adalimumab were made by ELISA technique (Theradiag) with a test range 0.3–16  $\mu$ g/mL. The statistical analysis was made using R 4.1.1 statistical software.

**Results** In this study, 39 patients were included, of which 34 (87.2%) were diagnosed with Crohn's disease and 5 (13%) suffered from ulcerative colitis; 53.8% were women. The mean age and weight were: 35.9 years (95% CI 31.3 to 40.5) and 68.5 kg (95% CI 61.9 to 75.1), respectively.

A positive and statistically significant correlation was found between the adalimumab trough Cp and the Cp of prealbumin ( $R^2$  0.113;  $p$ : 0.019). In those patients with prealbumin levels higher or equal to 22 mg/dL, the mean adalimumab trough Cp in maintenance therapy was significantly higher than those obtained in patients that had prealbumin levels lower than 22 mg/dL (adalimumab trough concentration: 8.73 mg/L (95% CI 6.03 to 11.43) vs 5.16 mg/L (95% CI 3.74 to 6.58), respectively ( $p=0.043$ )) (figure 1). There was no correlation between the Cp of adalimumab and those of albumin.



**Abstract 4CPS-170 Figure 1**