



# SARCOPENIA IS NOT ASSOCIATED WITH DIALYSIS VINTAGE: FINDINGS FROM THE SARC-HD MULTICENTER STUDY

## Introduction

**Sarcopenia**  is an age-related disease of muscle mass and strength decline; **highly prevalent in patients on hemodialysis**;

**Dialysis-related factors can contribute to sarcopenia**; <sup>1</sup>  
*e.g. membrane bio incompatibility; loss of nutrients; low protein balance; unpleasant symptoms; low physical activity levels.*

However, **dialysis vintage**  might impact musculoskeletal health over time, but its **association with sarcopenia remains unclear**.

Therefore, we explored the association between sarcopenia and dialysis vintage in a large national cohort study.

DOI: 10.1007/s40620-020-00840-y <sup>1</sup>

## Methods

Cross-sectional report from the SARC-HD study



**3 regions of Brazil**  
19 dialysis centers



**Adults (≥18 years)**  
**Hemodialysis (≥3 months)**






**Operational diagnosis**  
(EWGSOP2 algorithm) <sup>3</sup>

**Assessment**

-  Handgrip strength
-  Calf circumference
-  Physical performance (4-meter gait speed)

**Stages**

- Probable = **low** 
- Confirmed = **low** 
- Severe = **low** 



**3 groups**

- G1** → 3 to 18 months
- G2** → 19 to 50 months
- G3** → >50 months

DOI: 10.1186/s12882-023-03168-4 <sup>2</sup> ; DOI: 10.1093/ageing/afy169 <sup>3</sup>

## Results

**n = 728 patients**



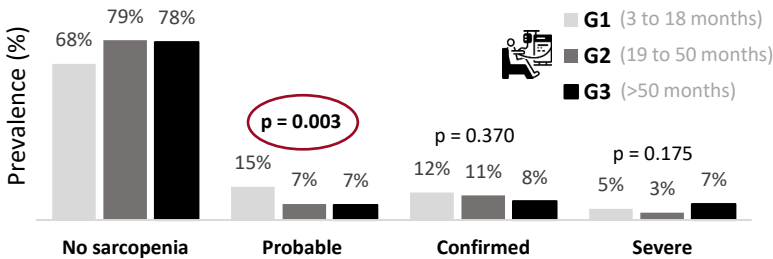
58 years; 61% men



**25%** Overall prevalence



**31 months**  
(IQR: 12 – 63)



- G1 - higher prevalence of probable sarcopenia**
- No significant difference was found for confirmed and severe sarcopenia
- No significant correlations between sarcopenia traits and dialysis vintage**  
(Chi-square and Pearson correlation)

## Conclusions

We found **no significant association between sarcopenia and dialysis vintage** in patients undergoing hemodialysis.

However, the prevalence of **probable sarcopenia** was higher for those with **shorter dialysis vintage**.

Thus, **interventions** aiming to prevent and mitigate **muscle strength loss** may be considered **independently of dialysis vintage**, but mainly to those recently admitted.



Dário R. Mondini<sup>1,2</sup>; Marvery P. Duarte; Maryanne Zilli; Maristela Bohlke; Angélica Adamoli; Rodrigo R. Krug; Bruna R. M. Sant'Helena; Daiana Bundchen; Maria G. Rosa; Flavio I. Nishimaru; Luiz A. R. Medina; Maycon M. Reboredo; Marco C. Uchida; **Heitor S. Ribeiro<sup>2,3</sup>**

<sup>1</sup>School of Physical Education, State University of Campinas, Campinas – SP; <sup>2</sup>University of Brasília, Faculty of Health Sciences, Brasília – DF; <sup>3</sup>Faculdade de Medicina da Universidade de São Paulo, São Paulo – SP.

