



# Hydration status and vascular access interventions

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# Presentation outline

**1** Introduction

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The hydration status of haemodialysis patients has an influence on blood pressure (BP) values, which may influence the haemodynamic status and the dynamics and morbidity of the vascular access (VA).

# Objectives

- To evaluate how the hydration status influences mean BP values;
- To assess whether the hydration status influences ischemic and thrombotic events of the vascular access.

# Methods (1/2)

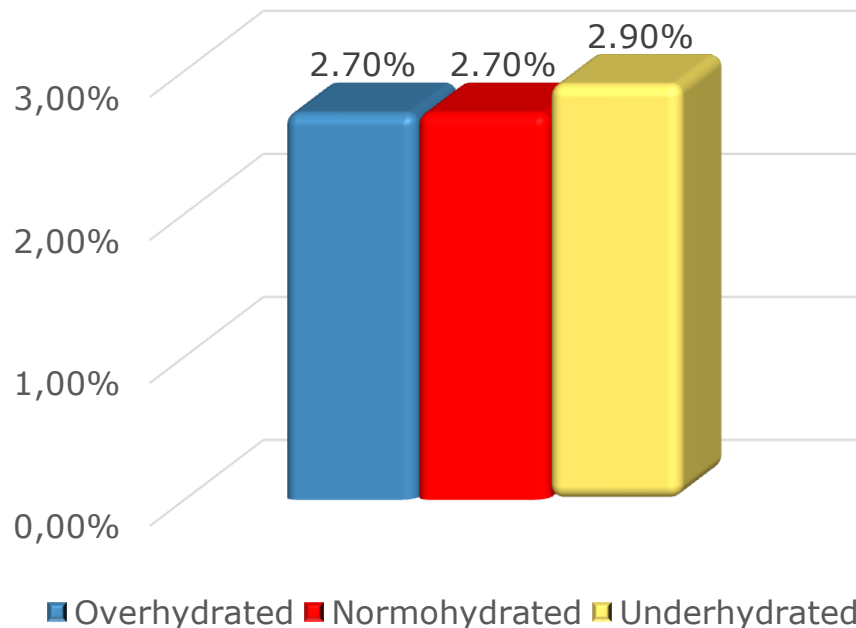
- Retrospective, quantitative, descriptive, observational study;
- Hydration status was assessed by bioimpedance spectroscopy on a monthly basis from 11/2012 until 10/2016:
  - Hydration status divided into 3 groups:
    - Overhydrated (OH): Relative OH (RelOH) >15% in men, >13% in women;
    - Normohydrated (NH): RelOH 0-15% in men and 0-13% in women;
    - Underhydrated (UH): RelOH <0% in men and women.

# Methods (2/2)

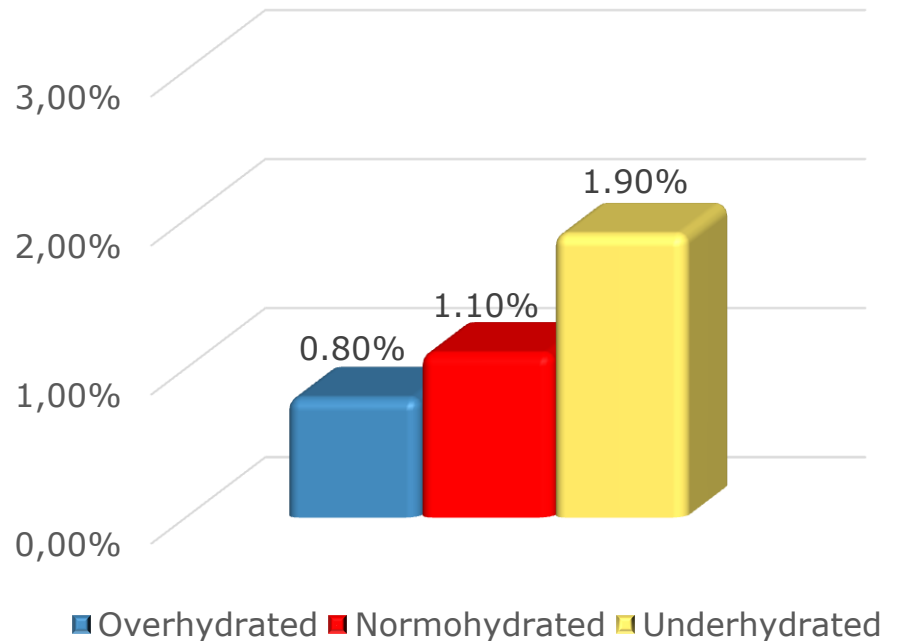
- VA interventions were recorded for the following causes:
  - according to vascular access flow values (Qa) (measured according to country protocol), signs/symptoms of peripheral ischemia;
  - Thrombosis events.
- Mean BP values (Systolic and Diastolic) in the 3 groups.

# Results (1/2)

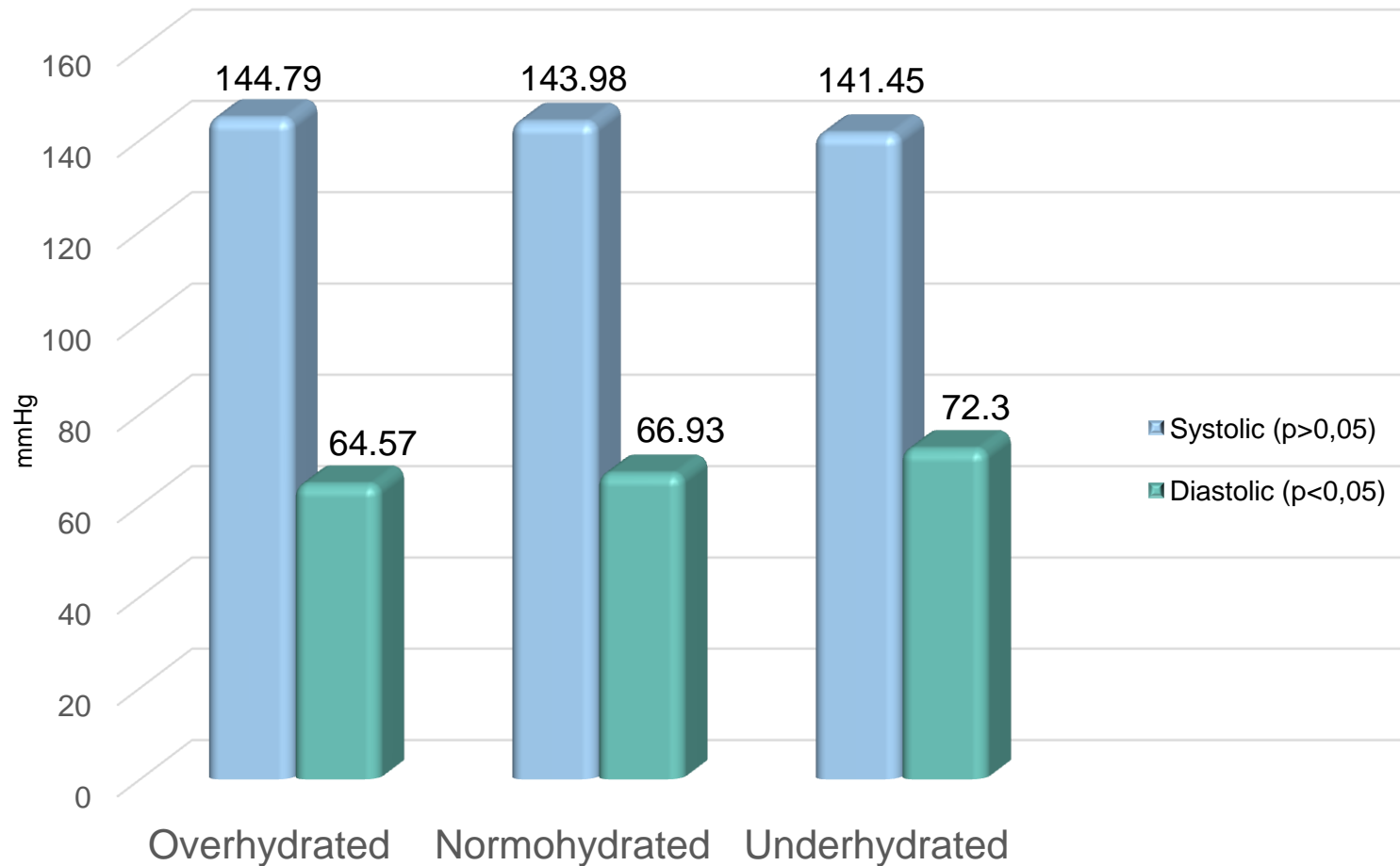
## Interventions caused by a Qa decrease and signs/symptoms of peripheral ischemia



## Interventions related to thrombosis



# Results (2/2)





# Conclusions

- **In our patients, the mean diastolic blood pressure ( $p < 0.005$ ) and percentage of VA thrombosis events progressively increased from the OH to the UH group.**
- **UH patients showed a slight increase in the percentage of interventions caused by Qa decrease and ischemia.**

**Thank You Very Much  
for Your Attention!**

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