

Health Status in Different Subgroups of People Receiving Hemodiafiltration Versus Hemodialysis for Renal Replacement Therapy: A Subgroup Analysis of the CONVINCe Randomized Controlled Trial

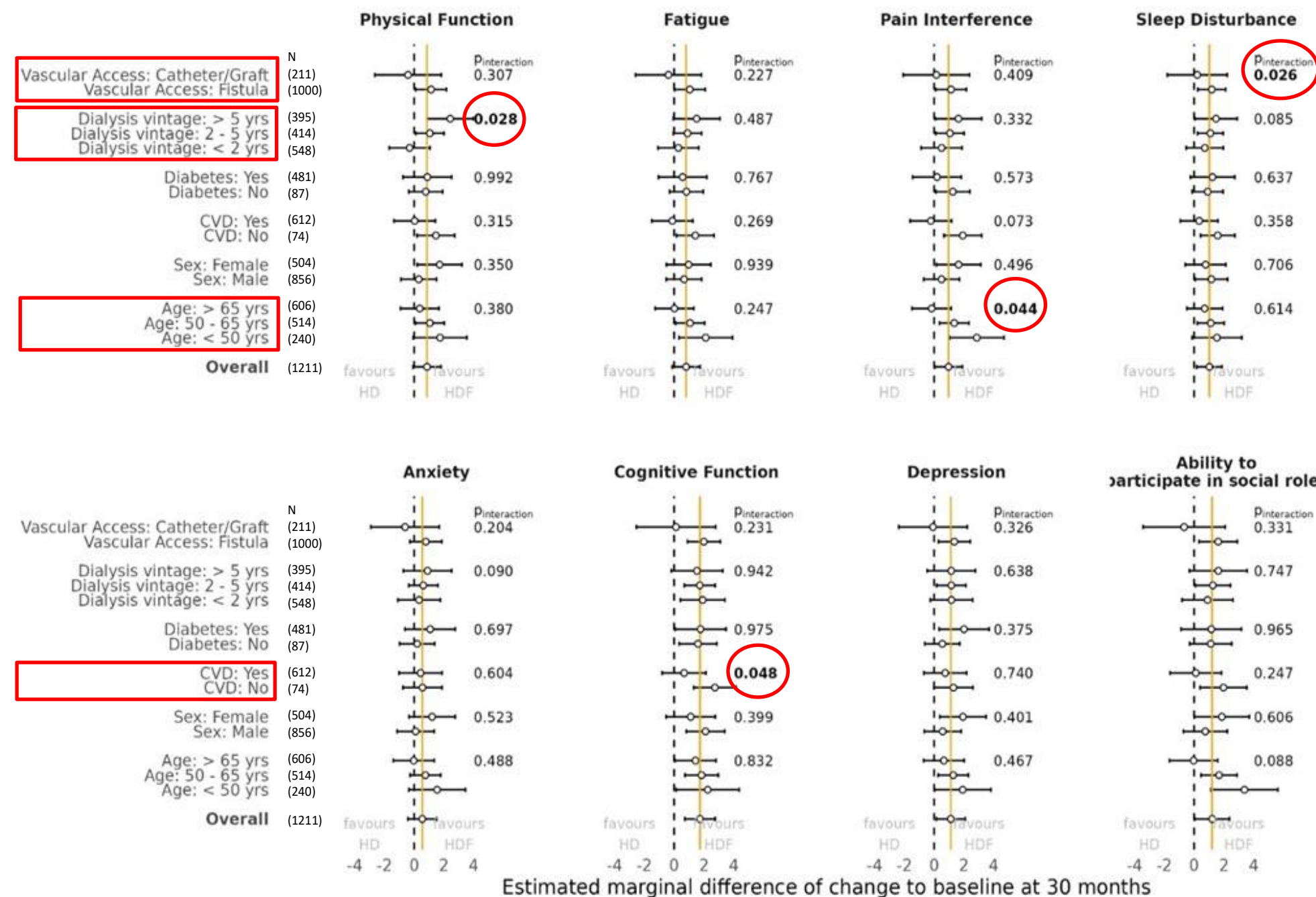
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BACKGROUND

- ❑ The **CONVINCE trial** found a **significantly slower decline of quality of life** in patients receiving high-dose **hemodiafiltration** as compared with conventional high-flux hemodialysis,
- ❑ particularly in **physical & cognitive function, pain interference** and **social participation**.
- ❑ There is clinical interest in whether these **benefits of hemodiafiltration** are **modified by age, sex, time on dialysis, diabetes** and **cardiovascular disease**, and **type of vascular access**.

METHOD

- 🧪 **CONVINCE Trial:** comparing benefits and safety of **high-dose hemodiafiltration versus high-flux hemodialysis**
- 📄 **Perceived health status assessed in 8 PROMIS® domains**
 - physical function, cognitive function, fatigue, sleep disturbance, depression, anxiety, pain interference, social participation
 - **Timepoints:** quarterly assessment (every 3 months)
- 📊 **Analyses:** Subgroup interaction in longitudinal linear mixed model
- 📊 **Subgroups:**
 - age (>65, 50-65, <50 years),
 - sex (male/female),
 - time on dialysis (>5, 2-5, <2 years),
 - diabetes (yes/no)
 - cardiovascular disease (yes/no),
 - type of vascular access (catheter/graft vs arteriovenous fistula)



RESULTS

- ❑ Of **1360 patients**, health status data was available for **1211 patients (89%)**
- ❑ Effect of hemodiafiltration on **sleep disturbance** significantly **better** in people with **arteriovenous fistula** as compared to those with catheters/grafts (p=0.026)
- ❑ People who had been on **dialysis for more than 5 years** show **better physical function** when randomized to hemodiafiltration (p = 0.028)
- ❑ Being on hemodiafiltration had stronger effect on **pain interference** in people who were **<50 years** (p = 0.044)
- ❑ Effects on **cognitive function** were better in people with **no history of cardiovascular disease** (p = 0.048)

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CONCLUSION

- ❑ CONVINCe study found **significant effects** of high-dose **hemodiafiltration** on **some domains** of health status compared to high flux hemodialysis.
- ❑ These benefits appear to **differ slightly between patient subgroups**.
- ❑ Differences could simply be the result of multiple statistical comparisons and an underpowered sample.
- ❑ Results are of relevance to be **further explored in pooled analyses** of randomized trials in view of clinicians' interest on the question.