

# Patient-reported outcomes and patient voices

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## Abstract

Online hemodiafiltration (HDF) treatment may be associated with better quality of life due to improved clearance of middle-molecular-weight uremic toxins and hemodynamic stability in dialysis patients, in addition to better overall survival.

## 1 | INTRODUCTION

Although the effects of online hemodiafiltration (ol-HDF) on patient-reported outcomes have not been studied in detail, some data favor ol-LHDF compared to HD.

The CONTRAST trial, the first large randomized controlled study comparing the effect of ol-HDF with low-flux HD on HRQOL as a secondary outcome, could not demonstrate a benefit of ol-HDF over low-flux HD in terms of KDQOL-SF scores for a median 2 years of follow-up.<sup>1</sup> One limitation of the trial was that it was not described whether the patients needed assistance to complete the KDQOL-SF. In a small randomized trial on health-related patient satisfaction level of high-efficiency ol-HDF versus high-flux HD, ol-HDF was associated with a higher satisfaction level than high-flux HD with less muscle cramps, itching, joint pain and stiffness, and improvement in general mood, sexual performance, and social activity assessed by modified KDQOL-SF.<sup>2</sup> In a prospective, randomized, crossover study comparing the effect of ol-HDF to low-flux HD, beneficial effects of ol-HDF were reported on total SF-36 scores, bodily pain, and role limitations due to emotional functioning.<sup>3</sup> In a prospective randomized controlled trial (FRENCHIE) in patients over 65 years of age focusing on dialysis tolerance and patient-reported outcomes, ol-HDF treatment was found to be associated with fewer episodes of symptomatic intradialytic hypotension and muscle cramps compared to the high-flux HD. However, HRQOL assessed by KDQOL-SF was not different in ol-HDF and high-flux HD arms over 2 years.<sup>4</sup> Finally, in a meta-analysis of randomized controlled trials evaluating HRQOL in patients treated with ol-HDF and HD, physical and mental component scores of QOL were found similar between treatment groups. On the other hand, ol-HDF was associated with better social activity scores compared to the HD.<sup>5</sup>

It is also important to note that which HRQOL questionnaire is more predictive than the others is still debated. Simpler and more specific questions such as recovery time after dialysis session or some

other patient-reported measures (patient perception) may better predict patient outcomes. In a small randomized crossover study of 8 weeks of ol-HDF and HD treatments, it was reported that recovery time after the session was not different between the two modalities.<sup>6</sup> Recently, in an observational cohort study from Canada, it was shown that switching from HD to ol-HDF was associated with substantially reduced recovery time in a subgroup of patients with baseline recovery time over 60 min.<sup>7</sup> In HDFIT randomized controlled trial from Brazil investigating the impact of HDF on physical activity and self-reported outcomes, self-reported sleep duration was found similar between ol-HDF and HD.<sup>8</sup> In addition, as a primary outcome, HDF did not significantly affect on measured physical activity scores compared to HD.<sup>9</sup>

The results of the secondary objectives of ongoing CONVINCENCE study, which investigating the effect of high-volume HDF and high-flux HD on mortality in 1800 prevalent patients, will be informative in terms of patient perception using PROMIS.<sup>10</sup>

## REFERENCES

1. Mazairac AH, de Wit GA, Grooteman MP, et al. Effect of hemodiafiltration on quality of life over time. *Clin J Am Soc Nephrol*. 2013;8(1):82-89. doi:10.2215/CJN.00010112
2. Karkar A, Abdelrahman M, Locatelli F. A randomized trial on health-related patient satisfaction level with high-efficiency online hemodiafiltration versus high-flux dialysis. *Blood Purif*. 2015;40(1):84-91. doi:10.1159/000381255
3. Kantartzi K, Panagoutsos S, Mourvati E, et al. Can dialysis modality influence quality of life in chronic hemodialysis patients? Low-flux hemodialysis versus high-flux hemodiafiltration: a cross-over study. *Ren Fail*. 2013;35(2):216-221. doi:10.3109/0886022X.2012.743858
4. Morena M, Jaussent A, Chalabi L, et al. Treatment tolerance and patient-reported outcomes favor online hemodiafiltration compared to high-flux hemodialysis in elderly. *Kidney Int*. 2017;91(6):1495-1509. doi:10.1016/j.kint.2017.01.013
5. Suwabe T, Barrera-Flores FJ, Rodrigues-Gutierrez R, Ubara Y, Takaichi K. Effect of online hemodiafiltration compared with

- hemodialysis on quality of life in patients with ESRD: a systematic review and meta-analysis of randomized trials. *PLoS ONE*. 2018; 13(10):e0205037. doi:10.1371/journal.pone.0205037
6. Smith JR, Zimmer N, Bell E, Francq BG, McConnachie A, Mactier R. A randomized, single-blind, crossover trial of recovery time in high-flux hemodialysis and hemodiafiltration. *Am J Kidney Dis*. 2017;69(6):762-770. doi:10.1053/j.ajkd.2016.10.025
  7. Ethier I, Nevis I, Suri RS. Quality of life and hemodynamic effects of switching from hemodialysis to hemodiafiltration. A Canadian controlled cohort study. *Can J Kidney Health Dis*. 2021;8:20543581211057717. doi:10.1177/20543581211057717
  8. Han M, Guedes M, Larkin J, et al. Effect of hemodiafiltration on self-reported sleep duration: results from a randomized controlled trial. *Blood Purif*. 2020;49(1-2):168-177. doi:10.1159/000504242
  9. Pecoits-Filho R, Larkin J, Poli-de-Figueiredo CE, et al. Effect of hemodiafiltration on measured physical activity: primary results of HDFIT randomized controlled trial. *Nephrol Dial Transplant*. 2021; 36(6):1057-1070. doi:10.1093/ndt/gfaa173
  10. The comparison of high-dose haemodiafiltration (HDF) with high-flux haemodialysis (HD)—CONVINCE. Horizon 2020. <https://ec.europa.eu/programmes/horizon2020/>

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