


LETTER TO THE EDITOR

# Haemodiafiltration and haemodialysis should be reported separately by kidney replacement therapy registries

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Haemodiafiltration (HDF) and haemodialysis (HD) are both well-established treatment methods worldwide. They are widely used as maintenance renal replacement therapy (RRT) for patients suffering from kidney failure, i.e. glomerular filtration rate below 15 mL/min/1.73 m<sup>2</sup> [1].

HD was first established in 1944 by Willem Kolff [2] and has since become the standard treatment globally for end-stage renal disease (ESRD) patients [3]. Over the years, this treatment has progressed, developed and evolved into HDF, a different treatment opportunity for the same patient cohort.

Better outcomes have been reported for HDF than for HD [4]. HDF has also been described as being increasingly used worldwide and a promising alternative to HD [5].

In Australia, the first satellite dialysis clinics were established in 1977, providing HD to the wider community [6]. However, for over 10 years now, it has been asked whether HDF should be the preferred treatment method for ESRD patients. Data from the Australian and New Zealand Dialysis and Transplant Registry (ANZDATA) showed that in 2005 only 2.65% of all prevalent ESRD patients received HDF, with conventional HD performed in 48.4% of these patients [7]. The same authors proposed that HDF should be more frequently used, specifically if HD time and rate of HD sessions could not be increased. A 2018 study by Locatelli et al. [8] indicated that in Europe, 18% of all dialysis patients received online HDF as their chosen form of treatment. Concurrently HDF was used in Japan in only 8% of all HD patients and was not being used at all in the USA. This may have been due to variances in regulatory approval processes for the online HDF method. A recent study by Mac et al. [9] described factors that may have affected the use of HDF over HD but also

reported a steady increase in the use of HDF between 2000 and 2014 in Australia and New Zealand.

Today, this has changed significantly and the most recent ANZDATA figures from December 2019 indicate that HDF has become the dominant treatment over HD, with 68.2% of all patients on RRT receiving HDF in Western Australia (WA), 41.4% in South Australia (SA) and 46.5% in Queensland (QLD) [10]. This resulted in a total percentage of 35.6% for the whole of Australia in 2018 and 20.5% for New Zealand for HDF of all RRT treatments, which is certainly a new milestone.

HDF is distinctively different from HD and uses a different technical approach, though is still classified as an RRT just like our old friend—the traditional method of HD. It is our belief that we need to begin changing our terminology when we talk about RRT in terms of HD, as HDF may soon become the common standard treatment method. It may also be necessary that we consider relabelling our hospitals and satellite dialysis clinics more correctly to ‘Haemodiafiltration Clinics’. For some experts in the renal community, it may appear overly pedantic that we would suggest relabelling, but we believe that a genuine argument can now be made for the need for a change of terminology, at least for WA. If future uptake of HDF continues to remain as popular as it is today, this will also become applicable for reporting organizations such as ANZDATA, which currently still publish under the heading ‘Haemodialysis’ for their annual reports for both Australia and New Zealand. This also applies to the European Renal Association (ERA), which is still reporting kidney replacement therapy just as HD [11].

*Call the sign-makers...!*

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## CONFLICT OF INTEREST STATEMENT

The authors declare that they have no conflict of interest.

## REFERENCES

1. Watanabe Y, Yamagata K, Nishi S et al. Japanese society for dialysis therapy clinical guideline for “hemodialysis initiation for maintenance hemodialysis”. *Ther Apher Dial* 2015; 19 Suppl 1: 93–107
2. Thomas N. *Renal nursing*. Chichester, West Sussex, UK: Wiley, Blackwell; 2014
3. Liew A. Perspectives in renal replacement therapy: haemodialysis. *Nephrology (Carlton)* 2018; 23 Suppl 4: 95–99
4. Mostovaya IM, Grooteman MPC, Basile C et al. High convection volume in online post-dilution haemodiafiltration : relevance, safety and costs. *Clin Kidney J* 2015; 8: 368–373
5. Schiff H. High-volume online haemodiafiltration treatment and outcome of end-stage renal disease patients: more than one mode. *Int Urol Nephrol* 2020; 52: 1501–1506
6. Mahony JF, Duncan F, Lawrence S et al. “Satellite” haemodialysis. *Med J Aust* 1979; 1: 368–370
7. Petrie JJ, Ng TG, Hawley CM. Review article: is it time to embrace haemodiafiltration for centre-based haemodialysis? *Nephrology* 2008; 13: 269–277
8. Locatelli F, Carfagna F, Del Vecchio L et al. Haemodialysis or haemodiafiltration: that is the question. *Nephrol Dial Transplant* 2018; 33: 1896–1904
9. Mac K, Hedley J, Kelly PJ et al. Effect of centre- and patient-related factors on uptake of haemodiafiltration in Australia and New Zealand: a cohort study using ANZDATA. *Nephrology (Carlton)* 2020; 25: 63–72
10. ANZDATA. ANZDATA Registry 43rd Annual Report 2020. Chapter 4: *Haemodialysis* 2020. Adelaide, Australia: Australia and New Zealand Dialysis and Transplant Registry
11. Kramer A, Boenink R, Stel VS et al. The ERA-EDTA Registry Annual Report 2018: a summary. *Clin Kidney J* 2020; 14: 107–123