

# Dialysate Flow: Is the Less the Better?

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Dear Editor,

Greetings from Colombia!

It was a pleasure to read your article “Differential Molecular Modeling Predictions of Mid and Conventional Dialysate Flows (Qd)”.

Minimization of Qd is a matter of interest for our group not only in terms of dialysis efficiency and patient safety but also in terms of reduction of wastage in water.

Since 2012, we have been prescribing Qd 400 mL/min for small patients, and we have already shared our experience [1, 2].

We have performed 2 *in vivo* comparative trials between Qd 400 and 500 mL/min with polynephron membranes with a thrice-a-week, 4-h hemodialysis (HD) scheme for patients with weight <70 Kg in a cross trial prescription of Qd 400 and 500 mL/min [3].

We found no differences in Kt/V, phosphate, hemoglobin, potassium, and interdialytic gain between our Qd groups Table 1 [3].

Recently we have successfully finished our 5-year analysis of mortality between Qd 400 and 500 mL/min in a chronic HD population in Colombia. Our results were shared in the ISN Congress next April in Melbourne in the poster session on the topic green nephrology as one of our Blue Planet dialysis initiatives [2].

We have seen in our previous results, as you did now in your interesting article, that a reduced Qd means no differences in dialysis efficiency, but we dare to add another interesting conclusion: we have estimated savings of potable water: with Qd reduction: 24 L of potable water was saved in each 4-h HD session per patient with a slight reduction of Qd (120 L/session in Qd 500 mL/min vs. 96 L/session in Qd 400 mL/min).

**Table 1.** Comparison between Qd 400 and 500 mL/min [9]

	Qd 400 mL/min	Qd 500 mL/min	<i>p</i> value
Interdialytic weight gain	2.37±0.7	2.41±0.6	0.41
Kt/V	1.57±0.25	1.59±0.23	0.45
Serum phosphorus, mg/dL	4.5±1.2	4.4±1.2	0.56
Hemoglobin, g/dL	11.3±1.8	11.3±1.6	0.96
Serum potassium, mg/dL	4.9±1.1	5.1±1.0	0.45
Qd, dialysate flow.			

When extrapolating our results to 100 patients, our reduction of Qd would result in an annual saving of 345,600 L of water, which is remarkable compared to World Health Organization minimum for basic health protection of at least 20 L per person/day: our saving equals the minimal amount of water for 1 adult for 47 years [2–4].

We hope that your efforts and interesting results will motivate nephrologists around the world to reduce Qd and reduce the ecological impact of renal replacement therapies to present HD as an affordable therapy in places with water scarcity.

## Disclosure Statement

The authors have no conflicts of interest to disclose.

## References

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