



Comment on: *Hemodiafiltration in a critical dialysis patient with H1N1 influenza A*

Vincenzo Savica, Domenico Santoro & Lorenzo A. Calò

To cite this article: Vincenzo Savica, Domenico Santoro & Lorenzo A. Calò (2010) Comment on: *Hemodiafiltration in a critical dialysis patient with H1N1 influenza A*, Renal Failure, 32:7, 902-902, DOI: [10.3109/0886022X.2010.494801](https://doi.org/10.3109/0886022X.2010.494801)

To link to this article: <https://doi.org/10.3109/0886022X.2010.494801>



Published online: 21 Jul 2010.



Submit your article to this journal [↗](#)



Article views: 276



View related articles [↗](#)

LETTER TO THE EDITOR

Comment on: *Hemodiafiltration in a critical dialysis patient with H1N1 influenza A*

Uremia-induced immune dysfunction¹ is a particular risk for H1N1 infection. A 28-year-old patient with dilated cardiomyopathy and 28% LVEF under chronic three times a week, 210 min acetate free biofiltration hemodialysis using a polyacrylonitrile dialyzer, presented with fever (39°C), dyspnea, myalgia, pharyngitis, cough, volume overload, and consciousness impairment. Blood pressure was 160/90 mmHg. Chest X-ray showed multiple airspace opacification bilaterally. Serum creatinine was 15.5 mg/dL and BUN 179, Na⁺ 128 mEq/L, K⁺ 5.5, and PO₄⁻ 10.2, creatine kinase 3002 UI/L. Biological pharyngeal and nasal mucosa tampon according to the Centre for Disease Control, Atlanta, USA, was positive for virus H1N1 infection. The patient was treated with Zanamivir twice a day, cephalosporin 2 g, and levofloxacin 250 mg per day. As for dialysis treatment, a 4 h post-diluted hemodiafiltration (HDF) using ultraflux dialyzer 2.2 m² was prescribed in consideration of the particular effect of HDF on the removal of pro-inflammatory cytokines.² Dialysis parameters were Q_b 300 mL/min, Q_s 4200 mL/h, Q_{INF} 4200 mL/h, Q_{UF} 850 mL/h. Infusion solution bags contained Na⁺ 145 mmol/L, K⁺ 3.5 mmol/L, Ca⁺⁺ 1.8 mmol/L, HCO₃ 45 mmol/L, glucose 25 mmol/L, pH ranging between 7 and 8.5. HDF was performed for three consecutive days removing 6.1, 4.0, and 2.5 L of fluid, respectively, and two more

HDFs on alternate days. Patient's respiratory status highly improved and after 4 days the patient was afebrile. Nine days after admission, the patient was discharged with cleaned chest X-ray.

As the removal of pro-inflammatory cytokines with a subsequent better control of the hemodynamic status is a priority for these patients, HDF may be a good option for dialysis patients with H1N1 influenza A.

Vincenzo Savica and Domenico Santoro
*Chair of Nephrology, University of Messina,
Messina, Italy*

Lorenzo A. Calò
*Department of Clinical and Experimental Medicine,
Clinica Medica 4, University of Padova, Via Giustiniani,
2, 35128, Padova, Italy*
E-mail: renzcalo@unipd.it

REFERENCES

- [1] Hauser AB, Stinghen AEM, Kato S. Characteristics and causes of immune dysfunction related to uremia and dialysis. *Perit Dial Int.* 2008;28(Suppl. 3):S183–187.
- [2] Kuo HL, Chou CY, Liu YL, Yang YF, Huang CC, Lin HH. Reduction of pro-inflammatory cytokines through hemodiafiltration. *Ren Fail.* 2008;30:796–800.