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## Effect of intermittent normal saline bolus during hemodialysis on adequacy of dialysis

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Improving the adequacy of dialysis (i.e. Kt/V) increases the quality of life and decreases the mortality and morbidity rate of the patient under hemodialysis. This Randomized Controlled Cross-over Clinical Trial was conducted to investigate the effect of intermittent normal saline bolus on adequacy of dialysis. The participants were 51 patients who chose based on inclusion criteria and assigned into two groups randomly. Before the intervention, for all patients, the Kt/V and Urea Reduction Ratio (URR) of the last session of dialysis (baseline) were measured and recorded. Whereas the control group dialyzed conventionally (heparinized dialysis), the intervention group received 100 ml normal saline bolus every hour, in three times besides. The control group was dialyzed based on routine. For three subsequent sessions, as a washout period, all patients received dialysis conventionally and then the groups were switched and all of the above repeated. Data were analyzed by using Mann-Whitney, t- and chi-square statistical tests. Before the intervention, two groups were matched on age, sex, duration of dialysis, vascular access type, adequacy of dialysis and Urea Reduction Ratio ( $P > 0.05$ ). Compare with baseline, the Kt/V and URR mean increased 16 and 8 percent in intervention group ( $P > 0.01$ ) and decreased 2 and 2 percent in control group, respectively. In addition, findings revealed a significant difference in Kt/V and URR mean between two groups after using normal saline bolus intermittently. Based on the findings, we can conclude, using intermittent normal saline bolus during the hemodialysis improves adequacy of dialysis.

### Biography

I have completed my PhD in Nursing at the age of 49 years from Iran University of Medical Sciences. I did my thesis on Developing a Model of Knowledge Translation. I spent my sabbatical at the University of Adelaide, School of Nursing, Australia under supervision of Professor Alison Kitson. I am assistant professor of Nursing and Midwifery School and the member of Nursing Research Center of Golestan University of Medical Sciences. I have published more than 20 papers in reputed journals. I have been working as an Editorial Board of Gorgan Medical journal since 2001.

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