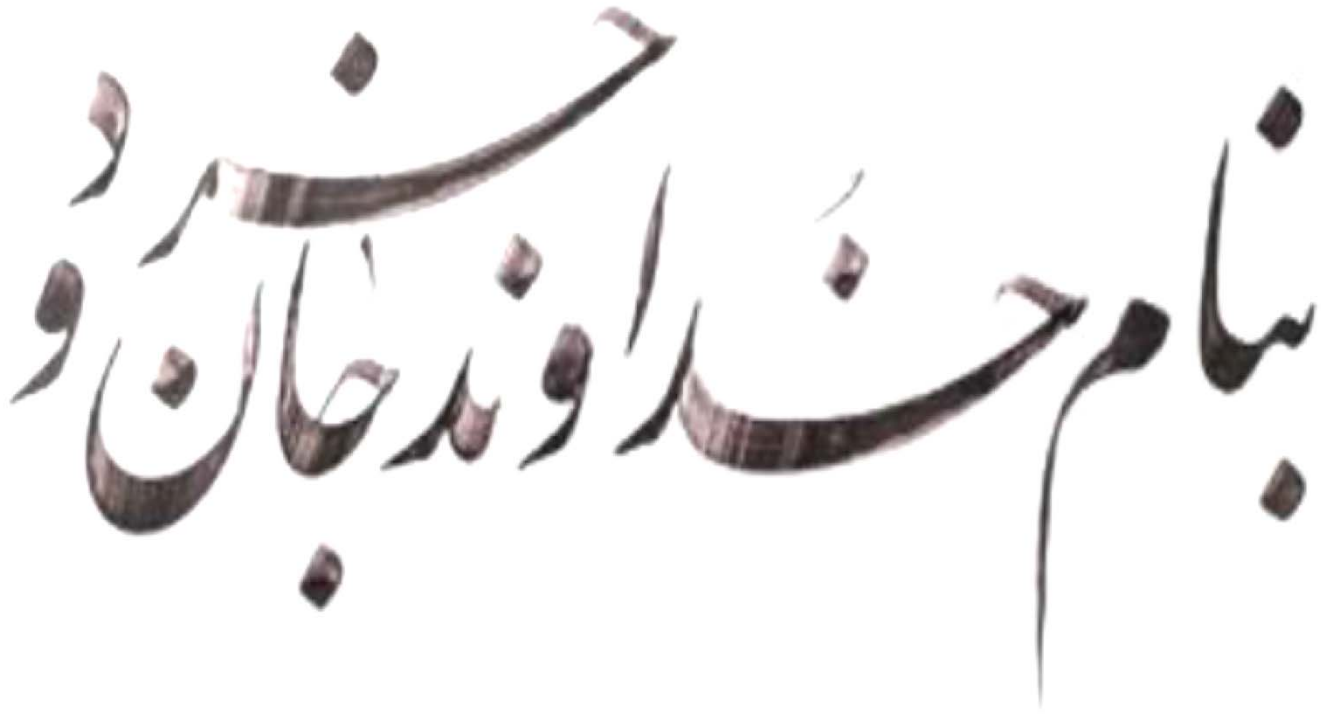
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Dialysis efficiency in hemodialysis patients of Social Security Organization Hospital of Takestan in 1397

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Introduction:

- Hemodialysis is the most commonly used treatment for patients who suffer from kidney failure.
- In each session of dialysis, the more we remove the waste materials from blood, the more efficiency of dialysis would be.
- Therefore, efforts to increase dialysis efficiency to improve patient quality of life are very important.

Adequacy of dialysis:

- In general, two **Kt/V** and Urea Reduction Rate (**URR**) indexes are used to evaluate the adequacy of dialysis.

- **Kt/V** : quantitatively evaluates the adequacy of dialysis, in which **K** is **urea clearance**, **T** is dialysis **time**, and **V** is the **volume of urea distribution** which depends on the **height**, **weight** and **sex** of the patient.

- $$\boldsymbol{URR} = \frac{(Befor\ dialysis\ Bun - After\ dialysis\ Bun)}{Befor\ dialysis\ Bun}$$

Importance of urea test

- Association of Kidney Physicians has determined that the minimum urea ratio, **65%**, and Kt/V higher than **1.2**, are adequate for optimal dialysis.

- Therefore, determining the exact amount of **urea** test in clinical laboratories before and after dialysis is very important in the fate of dialysis patients.

Laboratory aspects:

- Blood sampling before and after dialysis
- How to test urea before and after dialysis
- Precision in the post analytical steps

Material and Method:

- The **39** hemodialysis patients were participated in census method.
- Data gathering was accomplished by information inserted in patients' record.
- In order to determine dialysis efficiency, we used Kt/V and URR scales.
- The averages of Kt/V and URR were calculated for 3 consecutive months.

Results

Table 1. Comparison of Kt/V and URR scores between different factors

		KTV				URR			
		Total N	Mean	SD	P value	Total N	Mean	SD	P value
Total		39	1.34	0.21		39	66.36	5.94	
SEX	Male	24	1.29	0.17	0.07	24	65.17	4.93	0.1
	Female	15	1.42	0.25		15	68.27	7.03	
Filter	High Flux	14	1.35	0.14	0.8	14	66.64	3.88	0.8
	Low Flux	25	1.34	0.24		25	66.20	6.90	
Vessel	Fistula	29	1.38	0.20	0.04	29	67.52	5.16	0.03
	Shaldon	10	1.23	0.21		10	63.00	7.01	

Discussion:

- The results of this study suggest that 82.05 percent of patients have more than 1.2 Kt/V (average of 3 consecutive months).

- The results obtained in this center are higher than the average results reported in other similar centers.

Conclusion:

Although the results obtained from this study indicate that the quality of dialysis process at this center is good but to achieve international standards, a lot of things have to be done.

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