

## EVALUATION OF FACTORS AFFECTING THE ADEQUACY OF HEMODIALYSIS IN ACUTE SETTING

Mersema Abate, Siddharth Bhatt, Davinder Wadehra, Nand K Wadhwa, Division of Nephrology, SUNY, Stony Brook, NY.

Urea reduction ratio (URR) of  $\geq 65\%$  is considered optimal hemodialysis (HD) treatment in the chronic setting. More often, prescribed HD treatment may not be adequate and may not be delivered as prescribed in the acute setting. In addition, URR is not done routinely. The aim of the study was to evaluate adequacy of prescribed HD treatment and to evaluate the factors responsible for inadequate HD delivery. Two hundred and sixty one acute HD treatments were evaluated in 66 patients hospitalized in the tertiary care center from June to October 2007. One hundred seventy three (66%) had URR levels more than or equal to 65% and 88 (34%) had less than 65%. One hundred nineteen (46%) treatment sessions were done using AV fistula/graft while 142 (54%) were done with catheters. Prescribed and delivered HD treatment data are summarized below (mean  $\pm$  SD):

Variable	URR $\geq 65\%$	URR $< 65\%$	P value
Age (Years)	54.8 $\pm$ 17	53.1 $\pm$ 17	0.4
URR (%)	74.3 $\pm$ 7	56.8 $\pm$ 6	<0.001
Duration prescribed (Hrs)	3.8 $\pm$ 0.3	3.6 $\pm$ 0.4	<0.001
Duration delivered (Hrs)	3.8 $\pm$ 0.3	3.6 $\pm$ 0.4	<0.001
Blood flow rate prescribed ml/min	370 $\pm$ 41	347 $\pm$ 50	<0.001
Blood flow rate Delivered ml/min	358 $\pm$ 44	320 $\pm$ 54	<0.001

The use of heparin, type of access (AVF/catheter), type of dialyzer and weekend HD treatments were similar between the two groups. The average duration prescribed and delivered with in each group were similar. However the delivered average blood flow was significantly lower than prescribed in both groups. Data suggests low URR in acute HD treatment is related to inadequate HD prescription.