Unique System of Nocturnal Dialysis

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BACKGROUND: Description of a Nocturnal Hemodialysis (ND) program.

METHODS: Home Hemodialysis (HHD) was established as a dialysis option in 2004 in BC. 50\% of patients were on Home ND (HND). Barriers to uptake were prohibitive home situations, or clinical instability. To overcome this, two facility based (FB) options were evaluated. In 2009, a facility based independent nocturnal hemodialysis (FBIND) program started, and in 2011 a FB dependent ND (FBDND) was started. This cohort study describes the outcomes of those patients who commenced in one of these programmes between 1st Jan 2011 and 31st October 2012. Follow up was a year after start, or until the termination of program. Outcomes included change in biochemical parameters and medications pre/post study period. For continuous variables, mean with SD or median with inter-quartile were presented. Frequencies and percentages were reported for categorical variables. All tests were 2-sided and performed in SAS software version 9.3 (SAS Institute, NC).

RESULTS: Of 71 patients on NHD, 46\% were in the FBDND, 14\% in FBIND and 40\% in HND. Biochemical parameters did not change substantially over time, nor was it statistically significant between the three groups. All groups had reduction in medication: median number of medications in FBDND was 4 to 3 at the end of follow up, in FBIND 2.5 to 1.5 and in HHD from 4 to 3.
CONCLUSIONS: Our study shows that irrespective of co-morbidities and dialysis location, biochemical outcomes are similar. Medication reduction is possible in those who underwent ND. The uniqueness of our system allows patients to undergo ND in center before they move to home. This allows patients to undergo ND independently within the facility, who otherwise cannot dialyse at home. This allows room for respite care and helps patients sustain their chosen modality.