

## Dialysis Quality Improvement Needs Dialysis Registry: A Follow-up Study of Incident Hemodialysis Patients

Dear Editor,

In India, kidney replacement therapy (RRT) is largely limited to urban areas.<sup>[1]</sup> An Indian study stated that definitive RRT was instituted in 34% of eligible patients.<sup>[2]</sup> Hemodialysis (HD) is the most common RRT modality. A dialysis registry is needed to monitor patients on HD.<sup>[3]</sup> As data on incident hemodialysis is scarce, we conducted this prospective observational study from November 2020 to December 2021. Adult patients having chronic kidney disease stage 5 (CKD-5) who presented with uremic symptoms and who were initiated on HD for the first time were included. All patients and their caregivers were counseled for regular HD and early arteriovenous fistula (AVF) creation till renal transplantation. After shared decision-making, a tunneled cuffed catheter was inserted for those ready for regular HD. Patients or attendants were contacted by phone at three monthly intervals. The concerned information included their well-being, current vascular access, and AVF creation status. There were 193 patients with a mean age of  $61.5 \pm 13.4$  years [Table 1]. The follow-up time was 6–16 months. Twenty-four (12.4%) patients were lost to follow-up and 46 (23.8%) patients expired within 3 months. Among 123 (63.7%) patients who continued on hemodialysis after three months, the mortality was 47.2%. In India, these patients are not monitored because of the lack of a national registry for hemodialysis patients. In our study, the HD-dependent population was younger (75% being <64 years of age, which is higher than that stated in the ERS registry [ $\sim 50\%$ ]) and had higher mortality (47.2%) at one year compared to other registries (50%) in four years.<sup>[4]</sup> With the implementation of the national dialysis program, the financial burden has decreased. Still, many factors need to be addressed for giving quality dialysis services. A government-supported centralized registry of dialysis patients and user-operated mobile apps can be possible solutions. Providing training, motivation, and incentives to the staff involved in dialysis for maintenance of records are other possible solutions for the same. A small sample size, limited follow-up, and patients being dialyzed at different dialysis centers in

**Table 1: Baseline characteristics and follow-up data of study participants**

Variables	n=193
Age (years), mean $\pm$ SD	61.5 $\pm$ 13.4
18–20 years, n (%)	2 (1.0)
20–44 years, n (%)	48 (24.9)
45–64 years, n (%)	98 (50.8)
>65 years, n (%)	45 (23.3)
Sex (male-to-female ratio)	1.7:1
Comorbidities	
Hypertension, n (%)	125 (64.7)
Diabetes, n (%)	65 (33.7)
Hemoglobin (g%), mean+SD	7.9 $\pm$ 1.1
Follow-up duration (range)	6-16 months
Patients having follow-up and dialysis >90 days, n	123
Dialysis duration (months), median (IQR)	12 (6, 13)
Continued on maintenance dialysis, n (%)	65 (52.8)
AVF created, n (%)	39 (60)
Death, n (%)	58 (47.2)

AVF=arteriovenous fistula, IQR=interquartile range, SD=standard deviation, TCC=tunneled cuffed catheter

follow-up were the limitations. In conclusion, this study may pave large prospective studies to monitor and maintain quality dialysis services.

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### Conflicts of interest

There are no conflicts of interest.

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## References

1. Jha V. Current status of end-stage renal disease care in India and Pakistan. *Kidney Int Suppl* 2013;3:157-60.
2. Rao M, Juneja R, Shirly RB, Jacob CK. Haemodialysis for end-stage renal disease in Southern India--A perspective from a tertiary referral care centre. *Nephrol Dial Transplant* 1998;13:2494-500.
3. Bharati J, Jha V. Global dialysis perspective: India. *Kidney* 360. 2020;1:1143-7.
4. ERA Registry: ERA Registry Annual Report 2020. Amsterdam UMC, location AMC, Department of Medical Informatics, Amsterdam, the Netherlands, 2022.

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