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**The effect of nephrologist care on patient survival in hemodialysis facilities:
A Korean nationwide cohort study**

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Objectives: In Korea, it is not compulsory to hire a dialysis specialist in hemodialysis (HD) unit to care HD patients. However, it is important to provide essential and safe care to HD patients by the nephrologist. Therefore, we investigated the influence of the nephrologist care on patient mortality in HD facilities.

Methods: We used HD quality assessment and National Health Insurance Service claims data from the year of 2015 for collecting demographic and clinical information of HD patients. A total of 34,408 patients were divided into two groups according to the proportion of nephrologist in their HD unit as follows: 0%, group without nephrologist care (no care group), and $\geq 50\%$, group with appropriate nephrologist care (nephrologist care group). We analyzed mortality risk between groups using the Cox proportional hazard model after matching propensity score.

Results: The mean follow-up duration was 36.2 ± 11.2 months. The mean age was 60.0 ± 12.9 years, and males accounted for 58.8%. The nephrologist care group showed shorter dialysis vintage, higher levels of hemoglobin, higher spKt/V, lower levels of phosphorus, and lower systolic and diastolic blood pressure than the no care group. In the multivariate Cox regression analysis, the absence of nephrologist care was a significant independent risk factor for all-cause mortality (hazard ratio 1.10, 95% confidence interval 1.03-1.18; $p=0.004$).

Conclusions: The nephrologist care was an important determinant of overall patient survival among HD patients. The appropriate care by nephrologist may improve clinical outcomes in the patients undergoing HD.