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Time-Dependent Association between Dialysis Dose and 5-year Survival in Contemporary Maintenance Hemodialysis Patients
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**Background:** Although the HEMO Study suggested that the single-pool Kt/V of 1.32 was not inferior to 1.71, there are guidelines that have recommend maintaining Kt/V>1.4. However, specific evidence supporting the higher Kt/V threshold is lacking. **Methods:** We examined the time-dependent (calendar quarter varying) associations between achieved dialysis dose (3-mo averaged Kt/V) and 5-year survival in the national database of 110,087 MHD patients from all Legacy DaVita dialysis facilities between 7/2001 and 6/2006. Survival models were adjusted for case-mix (demographics & vintage) & malnutrition-inflammation complex syndrome (MICS) (creatinine, albumin, hemoglobin, WBC, ferritin, TIBC, lymphocyte%, calcium, phosphorus & bicarbonate). **Results:** An incremental survival improvement was noted with Kt/V level approaching the 1.6-2.2 or higher range (reference: 1.2-1.4) at all multivariate adjustment levels (Figure):

![Graph showing the relationship between Kt/V and all-cause mortality hazard ratio](image)

**Conclusions:** In a large national contemporary cohort of MHD pts over 5 years, achieved Kt/V >1.4 is associated with 20-30% greater survival.