

**F-FC312] Dialysate Endotoxin Level and Mortality of Hemodialysis Patients in the United States Based on the DOPPS**

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**Objective:** The aim of this study was to evaluate the effects of water quality by dialysate endotoxin level (ET) on hemodialysis (HD) patient outcomes in the United States (US). **Methods:** Data were analyzed from 4,136 HD patients on HD in the same facility > 90 days in the US Dialysis Outcomes and Practice Patterns Study (DOPPS) phase 1 and 2. Main exposure to be tested was ET reported by the 220 dialysis facilities. Main outcome measures included all-cause deaths and cause-specific deaths due to myocardial infarction (MI) or cerebrovascular accident (CVA). Cox regression was used to estimate the hazard ratio (HR) of each patient outcome. All models were adjusted for age, gender, race, time on ESRD, dialyzer-reuse, 14 comorbid conditions, stratified by study phase. The other outcome of interest was the difference in ET by facility water management practice. **Results:** ET greater than the median (>120 EU/L) was associated with significantly higher risk for all-cause death (HR=1.23, p=0.01), MI death (HR=1.53, p=0.05), and CVA death (HR=1.61, p=0.04). Similar graded associations of higher ET with elevated mortality were seen when examining ET by quartiles or by the Association for the Advancement of Medical Instrumentation (AAMI) categories. Logistic and linear regression analyses indicated a significantly lower (p<0.05) ET in facilities using an ultrafilter or reverse osmosis. **Conclusions:** These results suggest that higher ET indicating poorer water quality is related to greater risk of death (especially caused by MI and CVA) among HD patients in US. Higher ET is associated with certain facility water management practices. Correcting these modifiable facility practices may improve outcomes for HD patients.

Disclosure - grant/research support: The Dialysis Outcomes and Practice Patterns Study (DOPPS) is supported by research grants from Amgen and Kirin Pharma without restrictions on publications

**Friday, November 7, 2008, 4:24 PM**

**Free Communication: Outcomes Associated with Dialysis Modality and Delivery (4:00 PM-6:00 PM)  
Room 204 B/C**

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