

ST. JOHN'S, NEWFOUNDLAND—Patients on peritoneal dialysis (PD) are at 51% higher risk of being hospitalized for infections than those receiving [hemodialysis \(HD\)](#) , according to findings presented at the Canadian Society of Nephrology annual meeting.

“Higher risk of infection-related hospitalization among peritoneal dialysis patients is mostly explained by dialysis-related infections, which are for the most part peritonitis,” said primary investigator Jean-Philippe Lafrance, MD, of the University of Montreal. “This risk doesn't appear to be balanced by vascular-access-related infections among hemodialysis patients.”

He and his colleagues analyzed data from the Quebec health care insurance plan, Quebec hospital discharge summary databases, and the Canadian Organ Replacement Register. They analyzed information on all adults (except those who had already had a kidney transplant or fewer than three months' of follow-up data) with information in all three sets of databases who initiated chronic dialysis between January 2001 and December 2007. They investigators compared the characteristics of 915 PD patients in the resultant cohort of 5,858 patients to 915 matched HD patients.

The two groups of patients were similar with respect to all baseline characteristics the investigators examined, from age and gender to comorbidities and laboratory values.

Twenty-one percent of the PD patients had been hospitalized once in the previous year (not counting the hospitalization during which dialysis was initiated) compared with 16% of the matched HD patients. PD patients were also more likely than HD patients to have two or more and three or more hospitalizations (8% vs. 5% and 8% vs. 3%, respectively).

PD was associated with a nearly 2.9-fold higher risk compared to HD of hospitalization due to dialysis-related infections, a twofold increased risk of other hospitalizations due to other infections, including a 1.6-fold higher risk of hospitalization due to abdominal infections. However, PD also was associated with 70% and 40% lower probabilities of being hospitalized for septicemia or pneumonia, respectively.

In a previous retrospective cohort study of 168 patients initiating outpatient dialysis (71 on PD

and 97 on HD), researchers at Sunnybrook Health Sciences Centre in Toronto found that patients who initiate outpatient PD do not have a significantly increased risk of infection-related hospitalization compared with patients who initiate outpatient HD, according to a report published in *Peritoneal Dialysis International* (2011;31:440-449). The study, however, showed that patients starting outpatient treatment on PD were significantly more likely than those starting on HD to be hospitalized for peritonitis.

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