

At 32.7%, the CVE rate was lower than anticipated, and consequently the study was underpowered to detect a significant association between treatment with fosinopril and reduced risk of CVEs. Zannad *et al.* suggest that a further study of approximately 1,000 patients would have sufficient power to confirm both the efficacy and the favorable safety profile of fosinopril in patients with ESRD.

Original article Zannad F *et al.* (2006) Prevention of cardiovascular events in end-stage renal disease: results of a randomized trial of fosinopril and implications for future studies. *Kidney Int* 70: 1318–1324

Comparing management models for tunneled-cuffed-catheter-related bacteremia

Bacteremia is a major cause of morbidity and mortality in patients with tunneled cuffed catheters (TCCs), but management of this complication varies widely among nephrologists. Mokrzycki *et al.* compared two different management models, the collaborative team model—in which an infection manager (a registered nurse) works closely with nephrologists and dialysis staff to manage TCC-related bacteremia on the basis of the available guidelines—and the physician-managed model.

During the first 6 months of the study, baseline data were collected from seven outpatient long-term hemodialysis centers regarding physician-managed episodes of TCC-associated bacteremia. After 6 months, four centers were randomly assigned to collaborative-team management and three centers were assigned the physician-managed model.

In total, 223 first episodes of TCC-associated bacteremia were included in the study: 57 episodes that occurred during the 6-month prerandomization observation period and 166 episodes that occurred during the subsequent 2-year postrandomization period (55 episodes in physician-managed patients, and 111 episodes in patients managed by collaborative teams). Patients in whom TCC-related bacteremia was managed by a collaborative team were significantly less likely than those in physician-managed centers to experience recurrent bacteremia with the same organism ($P=0.015$) or septic death ($P=0.047$). Collaborative-team management of TCC-associated bacteremia was also associated with a 45% decrease

in the use of TCC salvage in the post-randomization period compared with the observation period, and was associated with improvements in antibiotic selection, duration of administration and dosing.

Original article Mokrzycki MH *et al.* (2006) An interventional controlled trial comparing 2 management models for the treatment of tunneled cuffed catheter bacteremia: a collaborative team model versus usual physician-managed care. *Am J Kidney Dis* 48: 587–595

Low-dose gentamicin effectively prevents catheter-related bacteremia

Catheter-related bacteremia (CRB) causes considerable morbidity and mortality in hemodialysis populations. A catheter-lock solution of 40 mg/ml gentamicin plus citrate effectively prevents CRB, but ototoxicity is a concern at this concentration. Nori *et al.* evaluated the effectiveness of gentamicin at a concentration of 4 mg/ml against control solutions of standard heparin and of 3 mg/ml minocycline, which has previously demonstrated efficacy in CRB prevention.

The 62 hemodialysis patients (53 prevalent, 9 incident) enrolled in the open-label study were evenly randomized between the gentamicin plus citrate, minocycline plus edetic acid (EDTA), and heparin groups. All patients used tunneled cuffed catheters. At 6 months, seven patients in the heparin group had developed CRB, compared with one patient in the minocycline group ($P=0.02$) and no patients in the gentamicin group ($P=0.008$). The observed efficacy of gentamicin led to early termination of the study. Catheter vintage had no effect on CRB rate, indicating that use of antibiotic-lock solutions need not be limited to newly inserted catheters. Four deaths occurred; none was CRB related.

The authors conclude that low-dose gentamicin effectively prevents CRB, and is preferable to minocycline on the basis of cost. The short follow-up periods of this and other studies of antibiotic catheter locks, however, do not allow conclusions to be drawn regarding potential long-term problems such as antibiotic resistance.

Original article Nori US *et al.* (2006) Comparison of low-dose gentamicin with minocycline as catheter lock solutions in the prevention of catheter-related bacteremia. *Am J Kidney Dis* 48: 596–605