hazard ratio 1.04, 95% CI 0.91–1.18), or any of the secondary outcomes (which included myocardial infarction, stroke, amputation of all or part of a lower extremity, time to thrombosis of arteriovenous access in hemodialysis patients and time to dialysis initiation in advanced CKD patients).

Original article Jamison RL *et al.* (2007) Effect of homocysteine lowering on mortality and vascular disease in advanced chronic kidney disease and end-stage renal disease: a randomized controlled trial. *JAMA* **298:** 1163–1170

Prophylactic hemodialysis prevents renal deterioration after coronary angiography

Pre-existing renal dysfunction is the main risk factor for contrast-induced nephropathy after coronary angiography. To date, there are no validated means of preventing this nephropathy in individuals with advanced renal failure. In a recent paper, Lee and co-workers report that prophylactic hemodialytic clearance of contrast media can prevent renal deterioration in these patients.

In total, 82 patients were enrolled in the study. All patients received normal saline before and after coronary angiography with nonionic iohexol; 42 of the patients also received prophylactic hemodialysis, started a mean 81 min after angiography. In the 72 h following coronary angiography, creatinine clearance rates (measured by 24 h urine collection) declined significantly less in the hemodialysis group than in the control group (–0.4 vs –2.2 ml/min/1.73 m^2; $P < 0.001$). Serum creatinine concentrations increased in both groups after coronary angiography, but the increases were more marked in the control group (peak levels: 592 vs 469 µmol/l [6.7 vs 5.3 mg/dl]; $P = 0.005$). At discharge, 13 control patients and 2 hemodialysis patients had a serum creatinine concentration >88 µmol/l (>1 mg/dl) higher than their baseline levels. No major dialysis-related complications were reported, and patients who received this treatment were discharged sooner after coronary angiography than were control patients (6 vs 13 days; $P = 0.017$).

Temporary dialysis after coronary angiography was required by 14 (35%) control patients, with 5 requiring maintenance dialysis after discharge from hospital. By contrast, only one patient in the prophylactic dialysis group required temporary hemodialysis.

Original article Lee PT *et al.* (2007) Renal protection for coronary angiography in advanced renal failure patients by prophylactic hemodialysis: a randomized controlled trial. *J Am Coll Cardiol* **50:** 1015–1020

Anti-MICA antibodies might contribute to kidney allograft loss

Antibodies against major histocompatibility complex (MHC) class I-related chain A (MICA) antigens might be involved in renal allograft rejection. MICA antigens are not expressed on peripheral blood lymphocytes, the cells that are usually used for crossmatching, but are expressed on endothelial cells, dendritic cells, epithelial cells and fibroblasts.

Zou *et al.* tested pretransplantation serum samples from 1,910 deceased-donor kidney transplant recipients for anti-MICA antibodies to determine whether the presence of these antibodies affected clinical outcome.

Anti-MICA antibodies were present in the pretransplantation serum samples of 217 (11.4%) kidney transplant recipients. The 1-year graft survival rate ±SD was significantly lower in patients with anti-MICA antibodies than in those without (88.3±2.2% vs 93.0±0.6%; $P = 0.01$). Among patients who had received a first transplant, this result was even more significant (graft survival rate 87.8±2.4% in the 183 patients with anti-MICA antibodies vs 93.5±0.6% in the 1,473 patients without anti-MICA antibodies; $P = 0.005$). The association between the presence of anti-MICA antibodies and reduced graft survival was particularly strong among the 326 patients who received kidneys that were well-matched in terms of human leukocyte antigen (HLA)-A, HLA-B and HLA-DR (graft survival 83.2±5.8% among those with anti-MICA antibodies vs 95.1±1.3% in those without anti-MICA antibodies; $P = 0.002$).

The authors conclude that MICA antibodies might contribute to graft loss in kidney transplant recipients who receive organs from donors that are well-matched for HLA. Screening for anti-MICA antibodies in patients awaiting kidney transplantation might be a useful method to identify those at risk for graft failure.

Original article Zou Y *et al.* (2007) Antibodies against MICA antigens and kidney-transplant rejection. *N Engl J Med* **357:** 1293–1300