

Effects of fenofibrate on renal function in patients with type 2 diabetes mellitus: the Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) Study. T. M. E. Davis et al. *Diabetologia* (2011) 54:280–290. DOI 10.1007/s00125-010-1951-1

This interesting analysis is an evaluation of fenofibrate's impact on renal function in the overall FIELD trial and washed out substudy (n=661) called the Modification of Diet in Renal Disease Study (the first such trial ever done in T2DM). The beneficial effect of the drug on renal function and/or albuminuria, have been seen in the DAIS and ACCORD trials. Other seemingly microvascular benefits of fenofibrate such as reductions in retinopathy and amputations related to neuropathic ulceration have also been reported in both FIELD and ACCORD studies. The important take home finding is that fenofibrate causes an initial rise in creatinine (which does not represent nephrotoxicity) with long term GFR preservation. At the conclusion of the 5 year trial, after cessation of fenofibrate, there was a drop in creatinine in below that of those who used placebo for 5 years. However better that in placebo-treated diabetics these fenofibrate-associated renal function changes were still at a level twice of those known to occur during normal aging in nondiabetics. The renal benefits were best related to those with or severe dyslipidemia or hypertriglyceridemia or the fenofibrate-induced drop in TG which as we now know is exactly the type of patient likely to have macrovascular benefits. The renal benefits of fenofibrate may have been underestimated as those in the placebo group used significantly more renin-angiotensin blockers and statins. The authors suggest the creatinemia is likely due to muscular production of creatinine, decreased active tubular secretion, reduced glomerular function and altered renal blood flow with the caveat that all are reversible and mask the renal improvement which is occurring (somewhat akin to that seen with ACEI). The renoprotective mechanisms of fenofibrate are currently unknown. The authors conclude that *"The size and consistency of the estimated GFR and albuminuria benefits support use of fenofibrate in type 2 diabetes to reduce renal morbidity, especially in patients with dyslipidemia."* That would be an off-label use of fenofibrate.