therefore, investigated whether probiotics—which alter the intestinal microflora, reduce gut permeability, and may decrease endotoxemia—could restore neutrophil function in patients with compensated cirrhosis.

This open-label, nonrandomized study included 13 healthy volunteers matched by age and sex to 20 patients with alcoholic cirrhosis, 12 of whom received probiotic treatment (6.5×10^9 *Lactobacillus casei* Shirota bacteria three times daily for 28 days). The other eight patients were probiotic-untreated controls. At baseline, patients' neutrophils had impaired phagocytic capacity, evidence of priming (the precursor to activation), and increased expression of Toll-like receptors (TLRs) 2 and 4, compared with those from healthy individuals. Neutrophil phagocytic capacity and expression of TLR4 (but not TLR2) normalized by the study end only in probiotic-treated patients. Patients also had elevated plasma levels of interleukin 10 (which down-regulates neutrophil phagocytosis) and soluble tumor necrosis factor receptors 1 and 2 (perhaps shed by activated neutrophils), neither of which normalized with probiotic treatment. Incubation of patients' baseline blood samples with endotoxin resulted in increased levels of these factors; this response was attenuated in samples taken after probiotic treatment.

The authors conclude that their results warrant investigation in a randomized, controlled trial.

Original article Stadlbauer V *et al.* (2008) Effect of probiotic treatment on deranged neutrophil function and cytokine responses in patients with compensated alcoholic cirrhosis. *J Hepatol* **48:** 945–951

HRT use in the early postmenopausal period might reduce IBD activity

That estrogen might reduce IBD activity is plausible as estrogens have anti-inflammatory properties and the menstrual cycle seems to affect IBD symptom severity. Kane and Reddy, therefore, investigated whether the estrogen-deficient, menopausal state increases IBD activity; these researchers also aimed to identify modifiers of IBD activity in postmenopausal women.

The researchers retrospectively analyzed the medical records of 65 postmenopausal women with IBD (40 with Crohn's disease and 25 with ulcerative colitis). Each patient acted as her own control since disease activity in the 5 years before the menopause (excluding a 2 year peri-menopausal period) was compared with that in the 5 years after the menopause. Median age at menopause was 48.2 years.

During the premenopausal and post-menopausal periods, similar proportions of women experienced a disease flare. Hormone-replacement therapy (HRT) had been used by 20 women after the menopause. Interestingly, women who used HRT were 82% less likely to have active disease in the postmenopausal period than were non-users of HRT, and this protective effect showed evidence of HRT dose-dependency, although patient groups were small. Furthermore, the medical management of postmenopausal women who experienced a flare and were HRT users was more conservative than that of non-users.

The researchers conclude that HRT use in the early postmenopausal period reduces IBD activity, but caution that their findings require confirmation in a large study.

Original article Kane SV and Reddy D (2008) Hormonal replacement therapy after menopause is protective of disease activity in women with inflammatory bowel disease. *Am J Gastroenterol* **103:** 1193–1196

Terlipressin plus albumin improves renal function in patients with cirrhosis and HRS

Effective therapies for hepatorenal syndrome (HRS)—which is associated with reduced survival both before and after liver transplantation in patients with advanced cirrhosis—are lacking. However, limited evidence from small studies suggests that vasocontrictors, such as the vasopressin analog terlipressin, might improve these patients' renal function. Martín-Llahí and colleagues conducted a randomized trial of terlipressin plus albumin versus albumin only in patients with cirrhosis and HRS.

Patients ($n = 46$) were randomly allocated to receive terlipressin (1–2 mg over 4 h, intravenously) plus albumin (1 g/kg, followed by 20–40 g per day) or albumin only for up to 15 days. Albumin was given with terlipressin because it seems to enhance the beneficial effects of the drug in patients with HRS.

Survival was not significantly different between the groups; at 3 months, six patients were alive in the terlipressin plus albumin group and four in the albumin-only group. By contrast, renal