The SONIC (Study of Biologic and Immunomodulator-Naive Patients with Crohn's Disease) trial compared infliximab plus azathioprine, infliximab alone, and azathioprine alone in immunomodulator- and biologic therapy–naive patients with moderate to severe CD. At 1 year, the infliximab plus azathioprine group had a glucocorticoid-free remission rate of 46% compared with 35% for infliximab alone and 24% for azathioprine alone. Complete mucosal healing was noted in more patients at week 26 with the combined approach compared with either infliximab or azathioprine alone (44 vs 30 vs 17%). The adverse events were equal between groups.

A similar study in patients with moderate to severe UC showed that after 16 weeks of therapy, UC patients receiving azathioprine plus infliximab exhibited a glucocorticoid-free remission rate of 40%, compared to rates of 24 and 22% in those on azathioprine and infliximab alone, respectively. Together, these studies support a more aggressive therapy for moderate to severe CD and UC. Trough infliximab levels can be checked, and if low, the dose can be increased or the interval decreased.

Hospitalized patients with acute severe glucocorticoid-refractory UC have a high inflammatory burden and may develop a protein-losing enteropathy, leading to an accelerated consumption, excessive fecal wasting, and low serum concentrations of infliximab. Given a clear exposure–response relationship for infliximab in patients with IBD, intensive infliximab dosing regimens have been used in these patients.

Adalimumab (ADA) is a recombinant human monoclonal IgG1 antibody containing only human peptide sequences and is injected subcutaneously. ADA binds TNF and neutralizes its function by blocking the interaction between TNF and its cell-surface receptor. Therefore, it seems to have a similar mechanism of action to infliximab but with less immunogenicity. ADA is approved for treatment of moderate to severe CD and UC. CHARM (Crohn's Trial of the Fully Human Adalimumab for Remission Maintenance) is an ADA maintenance study in patients who responded to ADA induction therapy. About 50% of the patients in this trial were previously treated with infliximab. Remission rates ranged from 42