

Monoclonal antibodies used for IBD

Drugs	MOA	Uses	Side effects
Infliximab	<p>Chimeric mouse-human monoclonal antibody. 25% murine – 75% human.</p> <p>Directed against TNF-α.</p> <p>Binds to soluble or membrane-bound TNF-α & neutralizes its activity. Therefore it is TNF-α blocker.</p> <p>Given as infusion I.V only (5-10 mg/kg).</p> <p>long half life (8-10 days). (MCC)</p> <p>2 weeks to give response.</p>	<p>In patient with moderate to severe Crohn's disease & ulcerative colitis (if not responding to immunomodulators or glucocorticoids).</p> <p>Because it is very expensive.</p> <p>Psoriasis, ankylosing spondylitis, psoriatic arthritis, rheumatoid arthritis.</p>	<p>Adverse acute infusion reaction (Allergic reaction).</p> <p>Delayed infusion reaction (serum sickness-like reaction).</p> <p>Management by:</p> <p>Pretreatment with diphenhydramine, acetaminophen, corticosteroids is recommended.</p> <p>Latent infection complication (tuberculosis, sepsis, reactivation of hepatitis B), Lymphoma & cancers.</p> <p>Bacterial, viral & other infections due to opportunistic pathogens.</p> <p>Loss of response to infliximab over time due to the development of antibodies to infliximab (termed human anti-chimeric antibodies).</p>
Adalimumab (HUMIRA)	<p>Fully humanized IgG antibody to TNF-α.</p> <p>It binds to TNFα, preventing it from activating TNF receptors.</p> <p>Has an advantage that it is given by subcutaneous injection.</p>		
Cetrolizumab	<p>A recombinant, humanized antibody Fab' fragment (Fragment antigen-binding), with specificity for human tumor necrosis factor alpha (TNFα), conjugated to an approximately 40kDa polyethylene glycol (PEG2MAL40K) to \uparrow its half-life in circulation.</p> <p>Given subcutaneously.</p>	<p>Used for treating signs & symptoms of moderate to severe Crohn's disease & maintaining response in adults unresponsive to usual treatment. It is also used for treating rheumatoid arthritis. It may be used alone or combined with methotrexate (Rheumatrex, Trexall) or other drugs used for treating rheumatoid arthritis.</p>	