

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Appraisal

Ozanimod for treating moderately to severely active ulcerative colitis

Final scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of ozanimod within its marketing authorisation for treating moderately to severely active ulcerative colitis.

Background

Ulcerative colitis is the most common inflammatory bowel disease. The cause of ulcerative colitis is unknown. Hereditary, infectious and immunological factors have been proposed as possible causes. It can develop at any age, but peak incidence is between the ages of 15 and 25 years, with a second, smaller peak between 55 and 65 years. It has been estimated that ulcerative colitis affects around 1 in 420 people¹, which equates to about 134,000 people in England². About 52% have moderate to severe disease³.

Ulcerative colitis usually affects the rectum, and a variable extent of the colon proximal to the rectum. The symptoms of ulcerative colitis include bloody diarrhoea, colicky abdominal pain, urgency, tenesmus, fatigue and anaemia. Some patients may have extra-intestinal manifestations involving joints, eyes, skin and liver. Ulcerative colitis is associated with significant morbidity; symptoms can have a debilitating impact on quality of life and daily life, including physical, social and mental wellbeing. It is a lifelong disease, and symptoms can recur or the disease can go into remission for months or even years. Around 50% of people with ulcerative colitis will have at least one relapse per year. About 80% of these are mild to moderate and about 20% are severe⁴. Complications of ulcerative colitis may include haemorrhage, perforation, stricture formation, abscess formation and anorectal disease. Some people may also develop primary sclerosing cholangitis, osteoporosis and toxic megacolon. People with long-standing disease have an increased risk of bowel cancer.

The aim of treatment in active disease is to address symptoms of bloody diarrhoea, urgent need to defecate and abdominal pain, and thereafter to maintain remission and improve quality of life. Initial management depends on clinical severity, extent of disease and the person's preference, and may include aminosalicylates (sulfasalazine, mesalazine, balsalazide or olsalazine), corticosteroids (beclometasone, budesonide, hydrocortisone or prednisolone) and biologics. An immunosuppressant (such as mercaptopurine or azathioprine) may be considered to maintain remission if aminosalicylates fail to do so.

For adults whose disease has responded inadequately to, or are contraindicated to, conventional therapy, NICE [technology appraisal 329](#) recommends infliximab, adalimumab and golimumab for treating moderately to severely active ulcerative colitis in adults whose disease has responded inadequately to conventional therapy including corticosteroids and mercaptopurine or azathioprine, or who cannot tolerate, or have medical contraindications for, such therapies. Vedolizumab (NICE [technology appraisal 342](#)) and tofacitinib (NICE [technology appraisal 547](#)) are recommended for treating moderately to severely active ulcerative colitis. NICE

[technology appraisal 633](#) recommends ustekinumab for moderately to severely active ulcerative colitis, only if a tumour necrosis factor-alpha inhibitor has failed or cannot be tolerated or is not suitable.

For people admitted to hospital with acute severe ulcerative colitis, NICE [clinical guideline NG130](#) recommends intravenous corticosteroids to induce remission and assessing the need for surgery. Intravenous ciclosporin or surgery is recommended for people who cannot tolerate or decline intravenous corticosteroids, for people in whom intravenous corticosteroids are contraindicated or in addition to corticosteroids for people who have been given intravenous corticosteroids and have had little or no improvement within 72 hours or a worsening of symptoms at any time. Surgery may be considered as emergency treatment for severe ulcerative colitis that does not respond to drug treatment. People may also choose to have elective surgery for unresponsive or frequently relapsing disease that is affecting their quality of life. The scope of this appraisal does not include severe ulcerative colitis that is a medical emergency requiring intensive inpatient treatment.

The technology

Ozanimod (Zeposia, Celgene) is a sphingosine 1-phosphate (S1P) receptor modulator that interacts with S1P receptors 1 and 5. Ozanimod reduces the number of lymphocytes circulating in the blood. It is administered orally.

Ozanimod has received a positive opinion from the Committee for Medicinal Products for Human use for the treatment of adult patients with moderately to severely active ulcerative colitis who have had an inadequate response, lost response, or were intolerant to either conventional therapy or a biologic agent.

Intervention(s)	Ozanimod
Population(s)	Adults with moderately to severely active ulcerative colitis who are intolerant of, or whose disease has had an inadequate response, or loss of response to previous biologic therapy (a TNF-alpha inhibitor, ustekinumab or vedolizumab), a JAK inhibitor (tofacitinib), or conventional therapy (oral corticosteroids and/or immunomodulators)
Comparators	<ul style="list-style-type: none"> • TNF-alpha inhibitors (infliximab, adalimumab and golimumab) • Tofacitinib • Ustekinumab • Vedolizumab • Conventional therapies, without biological treatments

<p>Outcomes</p>	<p>The outcome measures to be considered include:</p> <ul style="list-style-type: none"> • mortality • measures of disease activity • rates of and duration of response, relapse and remission • rates of hospitalisation • rates of surgical intervention • endoscopic healing • mucosal healing (combines endoscopic improvement and histological remission) • corticosteroid-free remission • adverse effects of treatment • health-related quality of life.
<p>Economic analysis</p>	<p>The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year.</p> <p>If the technology is likely to provide similar or greater health benefits at similar or lower cost than technologies recommended in published NICE technology appraisal guidance for the same indication, a cost-comparison may be carried out.</p> <p>The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared.</p> <p>Costs will be considered from an NHS and Personal Social Services perspective.</p> <p>The availability of any commercial arrangements for the intervention, comparator and subsequent treatment technologies will be taken into account.</p>

<p>Other considerations</p>	<p>If the evidence allows the following subgroups will be considered:</p> <ul style="list-style-type: none"> • people who have been previously treated with one or more biologic; • people who have not received prior biologic therapy. <p>The availability and cost of biosimilar products should be taken into account.</p> <p>Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.</p>
<p>Related NICE recommendations and NICE Pathways</p>	<p>Related Technology Appraisals:</p> <p>Ustekinumab for treating moderately to severely active ulcerative colitis (2020). Technology appraisal TA633. Review date: 2023.</p> <p>Tofacitinib for treating moderately to severely active ulcerative colitis (2018). Technology appraisal TA547. Review date: November 2021.</p> <p>Vedolizumab for treating moderately to severely active ulcerative colitis (2015). Technology appraisal TA342. Review date: June 2018.</p> <p>Infliximab, adalimumab and golimumab for treating moderately to severely active ulcerative colitis after the failure of conventional therapy (2015). Technology appraisal TA329. Review date: TBC.</p> <p>Appraisals in development (including suspended appraisals):</p> <p>Filgotinib for treating moderately to severely active ulcerative colitis NICE technology appraisals guidance [ID3736]. Publication date: December 2021</p> <p>Etrolizumab for treating moderately to severely active ulcerative colitis NICE technical appraisals guidance [ID3827]. Publication date: TBC</p> <p>Related Guidelines:</p> <p>Ulcerative colitis: management. NICE guideline NG130. Published date: May 2019. Review date: TBC.</p> <p>Related Interventional Procedures:</p> <p>Leukapheresis for inflammatory bowel disease (2005). NICE interventional procedures guidance 126.</p> <p>Transanal total mesorectal excision of the rectum (2015) NICE interventional procedures guidance 514.</p> <p>Related Quality Standards:</p>

	<p>Inflammatory bowel disease (2015). NICE quality standard 81</p> <p>Related NICE Pathways:</p> <p>Ulcerative colitis overview (2019). NICE pathway</p>
<p>Related National Policy</p>	<p>The NHS Long Term Plan, 2019. NHS Long Term Plan</p> <p>NHS England (2013) 2013/14 NHS standard contract for colorectal: complex (adult) particulars, schedule 2- the services, A - service specifications. Reference: A08/S/c</p> <p>Department of Health and Social Care, NHS Outcomes Framework 2016-2017: Domains 1 and 2 https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017</p>

References

1. [Crohn's and Colitis UK – About Crohn's and Colitis, Ulcerative Colitis](#) [accessed March 2021]
2. [Office for National Statistics – population estimates](#) [accessed March 2021]
3. National Institute for Health and Care Excellence, [Costing statement: Ulcerative colitis](#), June 2015 [accessed March 2021].
4. National Institute for Health and Care Excellence, Quality standards and indicators; [Briefing Paper 2014](#) [accessed March 2021].