

Adult with moderately to severely active Ulcerative Colitis

Does the patient have an acute exacerbation of severely acute ulcerative colitis

Yes

Treat according to NICE TA163 (Infliximab (TNFi))

Has the patient's disease failed to respond to **or** is the patient intolerant of **or** does the patient have contraindications to conventional therapy, including:

- Mercaptopurine/azathiopurine **and/or**
- Corticosteroid treatments?

First line treatment option:

- **Adalimumab biosimilar (TNFi) (TA329)**

As part of a planned course of treatment

Alternate first line treatment options if first line biologic is clinically inappropriate or if failed. Use the less expensive drug as a planned course of treatment (see note 1):

- Filgotinib (JAK1) (TA792) or
- Upadacitinib (JAK1) (TA856) (at 15mg maintenance dose) or
- Tofacitinib¹ (JAK1 JAK3) (TA547) or
- Infliximab biosimilar (TNFi) (TA329) or
- Golimumab (TNFi) (TA329) or
- Ozanimod (S1P) (TA828) or
- Mirikizumab (IL23) (TA925) (at standard maintenance dose) or
- Upadacitinib (JAK1) (TA856) (at 30mg maintenance dose) or
- Ustekinumab (IL12/IL23) (TA633) or
- Vedolizumab SC or IV¹² (Anti-integrin) (TA342)

Note 1: disease reassessment

At 12 months after the start of treatment, people should have their disease reassessed to determine whether ongoing treatment is still clinically appropriate. Treatment should only be continued if there is clear evidence of ongoing active disease. This should be determined by

- Clinical symptoms and
- biological markers and
- investigation, including endoscopy if necessary

Please note:

Dose escalation of biologic drugs is not currently recommended by NICE

¹ The following treatments may be given to patients who have had an inadequate response or lost response to, or who were intolerant to either conventional therapy or a TNF inhibitor.

- Filgotinib (JAK1) (TA792) or
- Upadacitinib (JAK1) (TA856) (at 15mg maintenance dose) or
- Tofacitinib (JAK1 JAK3) (TA547) or
- Ozanimod (S1P) (TA828) or
- Mirikizumab (IL23) (TA925) (at standard maintenance dose) or
- Upadacitinib (JAK1) (TA856) (at 30mg maintenance dose) or
- Ustekinumab (IL12/IL23) (TA633) or
- Vedolizumab SC or IV (Anti-integrin) (TA342)

²Continued therapy for patients with UC should be carefully reconsidered if no evidence of therapeutic benefit is observed by week 10.

At any point **before 12 months** of treatment has passed, has treatment failed (including the need for surgery)? (See appendix 1 for adequate response time)

No

At 12 months after the start of treatment, reassess the disease.

No

Is the patient in stable clinical remission?

Yes

Discuss the risks and benefits of continued treatment. Is a trial withdrawal considered appropriate?

Yes

Yes

Maintain treatment and reassess patient at least every 12 months.

Trial withdrawal from biologic drug used. Restart treatment if patient relapses after treatment

Cease treatment with the biologic drug used.

The ICB will only commission 4 treatment options (3 switches) per patient - this includes treatment failure and contra-indication/intolerance. JAPC recognises the RMOC statement. Further sequential use outside of the commissioning algorithm should be undertaken after advice via MDT in-line with Trust processes but is limited by clinical appropriateness and safety

Appendix 1- Dosing schedule in UC

| Biologic | | Induction phase | Maintenance phase | Adequate response time (weeks) |
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| Adalimumab (SC) | Adalimumab is a recombinant human monoclonal antibody that binds specifically to tumour necrosis factor alpha (TNF- α) | Induction phase <ul style="list-style-type: none"> Week 0 - 160mg SC Week 2 - 80mg SC | Maintenance phase <ul style="list-style-type: none"> 40mg every other week thereafter. | 2 - 8 weeks after starting treatment |
| Filgotinib | Filgotinib is an inhibitor of JAK1 | Induction phase <ul style="list-style-type: none"> 200mg OD for 10 weeks | Maintenance phase <ul style="list-style-type: none"> 200mg OD | 10 weeks after starting treatment If adequate therapeutic benefit is not achieved by week 10 the induction dose can be taken for an additional 12 weeks (22 weeks in total). If no therapeutic benefit is shown after 22 weeks, treatment should be discontinued. |
| Golimumab (SC) <i>Only recommended if the company provides the 100mg dose of golimumab at the same cost as the 50mg dose, as agreed in the patient access scheme.</i> | Human IgG1k monoclonal antibody produced by a murine hybridoma cell line with recombinant DNA technology | Induction phase- <u>if patient weighs <80kg</u> <ul style="list-style-type: none"> Week 0 - 200mg SC Week 2 - 100mg SC | Maintenance phase <ul style="list-style-type: none"> 50mg every 4 weeks thereafter. | 12 - 14 weeks after starting treatment |
| | | Induction phase <u>if patient weighs >80kg</u> <ul style="list-style-type: none"> Week 0 - 200mg SC Week 2 - 100mg SC | Maintenance phase <ul style="list-style-type: none"> 100mg every 4 weeks thereafter. | |
| Infliximab IV or SC | Infliximab is a chimeric human-murine IgG1 monoclonal antibody | Induction phase <ul style="list-style-type: none"> Week 0 - 5mg/kg IV Week 2 - 5mg/kg IV Week 6 - 5mg/kg IV Week 0, 2 – 5mg/kg IV Week 6 – 120mg SC | Maintenance phase <ul style="list-style-type: none"> 5mg/kg IV every 8 weeks 120mg SC every 2 weeks | Within the first 14 weeks |
| Mirikizumab IV and SC | Mirikizumab is a monoclonal antibody and is designed to attach to interleukin-23 and block its activity. | Induction phase <ul style="list-style-type: none"> Week 0 – 300mg IV Week 4 – 300mg IV Week 8 – 300mg IV | Maintenance phase <ul style="list-style-type: none"> 200mg SC every 4 weeks | 12 weeks after starting treatment For patients who do not achieve adequate therapeutic benefit at week 12 of induction dosing, mirikizumab 300 mg by intravenous infusion may be continued at weeks 12, 16 and 20. If therapeutic benefit is achieved with the additional intravenous therapy, patients may initiate mirikizumab subcutaneous maintenance dosing (200 mg) every 4 weeks, starting at week 24. Mirikizumab |

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| | | | | <p>should be discontinued in patients who do not show evidence of therapeutic benefit to extended induction therapy by week 24.</p> <p>Patients with loss of therapeutic response during maintenance treatment may receive 300 mg mirikizumab by intravenous infusion every 4 weeks, for a total of 3 doses (re-induction). If clinical benefit is achieved from this additional intravenous therapy, patients may resume mirikizumab subcutaneous dosing every 4 weeks. The efficacy and safety of repeated re-induction therapy have not been evaluated.</p> |
| Ozanimod | Ozanimod is a selective sphingosine 1-phosphate (S1P) receptor modulator with specificity for receptor subtypes 1 and 5 | <p>Induction phase</p> <ul style="list-style-type: none"> Days 1 to 4 - 0.23 mg once daily Days 5 to 7 - 0.46 mg once daily Days 8 and thereafter - 0.92 mg once daily | <p>Maintenance phase</p> <ul style="list-style-type: none"> 0.92 mg once daily | If conventional treatment cannot be tolerated or is not working well enough and infliximab is not suitable. |
| Tofacitinib | Tofacitinib is an inhibitor of JAK1 and JAK3 | <p>Induction phase</p> <ul style="list-style-type: none"> 10mg BD for 8 weeks <p>10 mg twice-daily dose of tofacitinib must not be prescribed in patients with one or more risk factors for pulmonary embolism. See MHRA warning here</p> <p>10 mg twice-daily dose of tofacitinib should not be used in patients who are at high risk of blood clots unless there is no suitable alternative treatment. Patients older than 65 years of age should be treated with tofacitinib only when there is no alternative treatment. See EMA warning here</p> <p>Tofacitinib should not be used in patients older than 65 years of age, people who are</p> | <p>Maintenance phase</p> <ul style="list-style-type: none"> 5mg BD | <p>If adequate therapeutic benefit is not achieved by week 8 the induction dose can be taken for an additional 8 weeks (16 weeks in total). Induction therapy should be stopped if there is no evidence of therapeutic benefit by week 16.</p> <p>For patients whose disease has responded inadequately to tumour necrosis factor antagonist therapy, consider continuing the 10-mg twice-daily dose for maintenance in order to maintain therapeutic benefit.</p> |

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| | | current or past smokers, or individuals with other cardiovascular (such as diabetes or coronary artery disease) or malignancy risk factors unless there are no suitable treatment alternatives See MHRA warning here | | |
| Upadacitinib | Selective and reversible inhibitor of the Janus-associated tyrosine kinase JAK1. | Initially <ul style="list-style-type: none"> 45mg once daily for 8 weeks | Maintenance phase: <ul style="list-style-type: none"> 15mg once daily 30mg once daily 30mg dose maybe appropriate for patients with high disease burden or requiring 16-week induction or those patients who do not show adequate therapeutic benefit to 15mg OD. | For patients who do not achieve adequate therapeutic benefit by week 8, upadacitinib 45 mg once daily may be continued for an additional 8 weeks. Upadacitinib should be discontinued in any patient who shows no evidence of therapeutic benefit by week 16. |
| Ustekinumab | Ustekinumab is a fully human IgG1k monoclonal antibody to interleukin (IL)-12/23 | Induction phase <ul style="list-style-type: none"> Week 0 - 6 mg/kg IV | Maintenance phase <ul style="list-style-type: none"> Week 8 – 90mg SC Thereafter every 12 weeks | Patients who have not had an adequate response 8 weeks after the first subcutaneous dose (week 16) may have a second subcutaneous dose at this time, to allow for delayed response. Patients who lose response on dosing every 12 weeks may benefit from an increase in dosing frequency to every 8 weeks. Patients may subsequently have ustekinumab every 8 weeks or every 12 weeks according to clinical judgement. |
| Vedolizumab (SC) | Vedolizumab is a humanised IgG1 monoclonal antibody that binds to the human $\alpha 4\beta 7$ integrin. | Induction Phase <ul style="list-style-type: none"> Week 0 - 300mg IV Week 2 - 300mg IV Week 6 - 300mg IV* | Maintenance phase <ul style="list-style-type: none"> 108mg SC every 2 weeks thereafter | Observed by week 10. *The recommended dose regimen of subcutaneous vedolizumab as a maintenance treatment, following at least 2 intravenous infusions, is 108 mg administered by subcutaneous injection once every 2 weeks. |
| Vedolizumab (IV) | Vedolizumab is a humanised IgG1 monoclonal antibody that binds to the human $\alpha 4\beta 7$ ntegrin. | Induction Phase <ul style="list-style-type: none"> Week 0 - 300mg IV Week 2 - 300mg IV Week 6 - 300mg IV | Maintenance phase <ul style="list-style-type: none"> 300mg IV every 8 weeks thereafter | Observed by week 10. |