KENT AND MEDWAY INFLAMMATORY BOWEL DISEASE (IBD) (ADULTS) HIGH-COST DRUG (HCD) PATHWAY

Developed by the Kent and Medway IBD HCD working group

Version 1.1

Version Control	
Date	Amendment
22/06/2023	Pathway agreed by group V1.0
22/08/2023	Pathway approved by IMOC
	Inclusion of mirikizumab (TA925) to
30/10/2023	pathway V1.1



9. Ozanimod screening requirements: ECG screening for all patients prior to commencement of Ozanimod to detect cardiac abnormality First-dose, 6-hour observation is recommended for certain patients (refer to SPC). Ophthalmology screening for macular oedema is required for patients with diabetes uveitis or a history of retinal disease prior to initiation and during treatment.





The precise level of antibody significance is yet to be defined

Antibodies can be reduced by immunosuppression or anti-TNF dose adjustments

An antibody level > 40 is unlikely to be cleared by immunosuppression or anti-TNF dose adjustments

Appendix 1:

NICE TA's and Evidence Based Treatment Outcomes:

CROHN'S DISEAS Drug TA DATE Place in pathway			CROHN'S DISEASE Place in pathway	Evidence based treatment outcomes from clinical trials			
				(source NICE guidance)			
Adalimumab Infliximab	TA187	MAY-10	Infliximab and adalimumab, within their licensed indications, are recommended as treatment options for adults with severe active Crohn's disease whose disease has not responded to conventional therapy (including immunosuppressive and/or corticosteroid treatments), or who are intolerant of or have contraindications to conventional therapy.	Infliximab: Participants were randomised to infliximab 5 mg/kg, 10 mg/kg, 20 mg/kg or placebo for non-fistulating disease. The rate ratio (RR) for remission (the rate of remission in the 5 mg/kg group divided by the rate of remission in the placebo group; remission defined as CDAI score below 150) was 12.04 (95% confidence interval [CI] 1.70 to 85.44). There were also significantly greater rates of 70-point reductions in CDAI (referred to as response 70) in the infliximab 5 mg/kg group. The study of infliximab induction treatment in fistulating disease compared infliximab at a dose of 5 mg/kg or 10 mg/kg with placebo. Follow-up extended to at least week 18. The primary outcome was a 50% reduction in the number of draining fistulae; the rate difference between the infliximab 5 mg/kg and placebo groups was 0.42 (95% CI 0.19 to 0.64). The secondary outcome was complete absence of fistulae; the rate difference between the infliximab 5 mg/kg and placebo groups was 0.42 (95% CI 0.21 to 0.63). Infliximab groups had statistically significant improvements in CDAI and PCDAI scores at week # Adalimumab: For maintenance dose the CLASSIC II trial results for the point estimate for remission RR versus placebo at week 56 was 1.78 (95% CI 1.01 to 3.13) for the every other week schedule and 1.88 (95% CI 1.08 to 3.27) for the weekly schedule.			
Vedolizumab	TA352	Aug-15	Vedolizumab is recommended as an option for treating moderately to severely active Crohn's disease only if: • a tumour necrosis factor-alpha inhibitor has failed (that is, the disease has responded inadequately or has lost response to treatment) or • a tumour necrosis factor-alpha inhibitor cannot be tolerated or is contraindicated. Vedolizumab is recommended only if the company provides it with the discount agreed in the patient access scheme.	The results for the primary outcomes of GEMINI II showed that at week 6, clinical remission rates (CDAI score 150 points or less) were significantly higher in patients having vedolizumab than in patients having placebo (14.5% [95% CI 9.9 to 19.2] and 6.8% [95% CI 2.7 to 10.8]) respectively. For maintenance treatments, i.e. patients receiving vedolizumab every 8 weeks, the treatment difference from placebo was 17.4% (95% CI 7.3 to 27.5, p=0.0007) and in patients receiving vedolizumab every 4 weeks, it was 14.7% (95% CI 4.6 to 24.7, p=0.0042). Clinical remission rates were higher for patients who had vedolizumab every 4 or 8 weeks compared with those who had placebo regardless of prior TNF-alpha inhibitor use.			
Ustekinumab	TA456	Jul-17	Ustekinumab is recommended, within its marketing authorisation, as an option for treating moderately to severely active Crohn's disease, that is, for adults who have had an inadequate response with, lost response to, or were intolerant to either conventional therapy or a TNF-alpha inhibitor or have medical contraindications to such therapies.	In UNITI-1 at week 6, 33.7% of patients in the ustekinumab group at the licensed dose of approximately 6 mg/kg had a clinical response compared with 21.5% in the placebo group (p=0.003). In UNITI-2 (TNF naïve) at week 6, 55.5% of patients in the ustekinumab group had a clinical response compared with 28.7% in the placebo group (p=0.001). The committee noted that at 44- week follow-up in the IM-UNITI maintenance trial, the proportion of patients in clinical remission (the primary outcome) was significantly greater in both the 90 mg every 12 weeks (48.8%) and 90 mg every 8 weeks (53.1%) ustekinumab groups than in the placebo group (35.9%, p=0.040 and p=0.005 respectively).			
Risankizumab	TA888	May-23	Risankizumab is recommended as an option for treating moderately to severely active Crohn's disease in people 16 years and over, only if: • the disease has not responded well enough or lost response to a previous biological treatment, or • a previous biological treatment was not tolerated, or • tumour necrosis factor (TNF)- alpha inhibitors are not suitable.	Induction: In ADVANCE trial, there were 219 people in the conventional care failure subgroup and 292 people in the biological treatment failure subgroup In MOTIVATE trial, there were 378 people who had a previous biological treatment. Maintenance: People whose disease responded to treatment entered FORTIFY, a phase 3 multicentre, double-blind, placebo-controlled maintenance trial. FORTIFY sub-study 1 (n=542): re-randomised people to subcutaneous 180 mg or 360 mg risankizumab or placebo (withdrawal) every 8 weeks for 52 weeks.			

				The results from the induction trials suggested that risankizumab is associated with higher rates of clinical remission and endoscopic response compared with placebo in the conventional care failure and biological treatment failure populations. The results from FORTIFY suggested that risankizumab is associated with higher rates of endoscopic response compared with placebo in the conventional care failure and biological treatment failure populations.
Upadacitinib	TA905	Jan-23	Upadacitinib is recommended as an option for treating moderately to severely active Crohn's disease in adults, only if: the disease has not responded well enough or lost response to a previous biological treatment or a previous biological treatment was not tolerated or tumour necrosis factor (TNF)- alpha inhibitors are contraindicated. Upadacitinib is only recommended if the company provides it according to the commercial arrangement.	U-EXCEL and U-EXCEED were studies of upadacitinib induction treatment. U-EXCEL (n=526 for part 1) included people whose disease had had inadequate response or were intolerant to conventional therapy only (conventional care failure) or to biological treatment (biological failure). U-EXCEED (n=495 for part 1) included only a biological failure population. For the biological failure population, both trials showed a statistically significant improvement in the rate of clinical remission and endoscopic response with a 45-mg induction dose of upadacitinib compared with placebo at 12 weeks. The third study, U-ENDURE, was a study of upadacitinib maintenance treatment. For the biological failure population, cohort 1 of U-ENDURE showed a statistically significant improvement in rates of clinical remission and endoscopic response with a 15-mg and 30- mg maintenance dose of upadacitinib compared with placebo at 52 weeks. The data is confidential and was not reported in the NICE guidance.

	ULCERATIVE COLITIS					
Drug	ТА	DATE	Place in pathway	Evidence based treatment outcomes from clinical trials (source NICE guidance)		
Infliximab gc Golimumab wi au tru ac wi in. th ar az to cc th		Infliximab, adalimumab and golimumab are recommended, within their marketing authorisations, as options 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.	The committee concluded that the TNF-alpha inhibitors were clinically effective compared with placebo in the randomised controlled trials (RCT). Ultra trial results: Adalimumab 16.5% vs 9.3% placebo on clinical remission at week 8. 8.5% adalimumab vs 4.1% placebo continued remission to week 52. ACT trial: Infliximab - week 8: 69% infliximab vs 31% placebo - week 54 46% vs 27% placebo. Pursuit trial result: Golimumab 51% vs 30% placebo at week 6 on clinical remission, 49.7% golimumab vs 31.2% placebo week 52 on clinical remission.			
Infliximab	TA163	Dec-08	Infliximab is recommended as an option for the treatment of acute exacerbations of severely active ulcerative colitis only in patients in whom ciclosporin is contraindicated or clinically inappropriate, based on a careful assessment of the risks and benefits of treatment in the individual patient.	The probabilities of a patient undergoing colectomy were estimated to be 0.67, 0.23 and 0.58 for placebo, infliximab and ciclosporin, respectively, for the first 3 months. The respective probabilities during months 4–12 was 0.14, 0.27 and 0.18 for placebo, infliximab and ciclosporin respectively.		
Vedolizumab	TA342	June-15	Vedolizumab is recommended, within its marketing authorisation, as an option for treating moderately to severely active ulcerative colitis in adults only if the company provides vedolizumab with the discount agreed in the patient access scheme.	 Gemini trial: % Clinical remission at week 6: 16.9% vedolizumab vs 5.4% placebo. % Clinical remission at week 52: 8weekly 41%, 4weekly 44.8% vs placebo 15.9%. 		
Ustekinumab	TA633	June-20	Ustekinumab is recommended as an option for treating moderately to severely active ulcerative colitis in adults when conventional therapy or a biological agent cannot be tolerated, or the disease has	At the end of induction treatment, rates of clinical remission and response were statistically significantly higher in the ustekinumab 6 mg per kg and 130 mg groups than the placebo group. This was the case for both the non-biologic failure and biologic-failure subgroups, and for the overall ITT population. At week 44 of the maintenance phase, a statistically significantly greater proportion		

tolerated, or the disease has

of patients who had had ustekinumab maintenance with either

			responded inadequately or lost response to treatment, only if: • a tumour necrosis factor-alpha inhibitor has failed (that is the disease has responded inadequately or has lost response to treatment) or • a tumour necrosis factor-alpha inhibitor cannot be tolerated or is not suitable, and • the company provides ustekinumab at the same price or lower than that agreed with the Commercials Medicines Unit.	dose were in clinical remission than those who had had placebo. This was the case for both the non-biologic failure and biologic- failure subgroups, and for the overall ITT population.
Tofacitinib	TA547	Nov-18	Tofacitinib is recommended, within its marketing authorisation, as an option for treating moderately to severely active ulcerative colitis in adults when conventional therapy or a biological agent cannot be tolerated or the disease has responded inadequately or lost response to treatment. It is recommended only if the company provides tofacitinib with the discount agreed in the commercial arrangement.	OCTAVE trial: Clinical remission at week 8: 18.5% Tofacitinib VS 8.2% Placebo. Clinical remission at week 52: 40.6% tofacitinib VS 11.1 placebo
Filgotinib	TA792	June-22	Filgotinib is recommended, within its marketing authorisation, as an option for treating moderately to severely active ulcerative colitis in adults: • when conventional or biological treatment cannot be tolerated, or • if the disease has not responded well enough or has stopped responding to these treatments, and • if the company provides filgotinib according to the commercial arrangement.	Biologic naïve patients at week 8 had EBS remission of 26.1% figotinib vs 15.6% on placebo. For biologic non-naïve patients, EBS remission at week 8 was 11.5% for filgotinib vs 4.2% for placebo and at week 52 was 37.2% for filgotinib vs 11.2% for placebo.
Upadacitinib	TA856	Jan-23	Upadacitinib is recommended, within its marketing authorisation, as an option for treating moderately to severely active ulcerative colitis in adults: when conventional or biological treatment cannot be tolerated, or if the condition has not responded well enough or has stopped responding to these treatments, and if the company provides upadacitinib according to the commercial arrangement.	U-achieve (induction): 26% of patients on rinvoq and 5% of patients on placebo had clinical remission respectively. U-accomplish (maintenance): 33% of patients on rinvoq and 4% of patients on placebo had clinical remission respectively.
Ozanimod	TA828	Oct-22	Ozanimod is recommended as an option for treating moderately to severely active ulcerative colitis in adults, only if: • conventional treatment cannot be tolerated or is not working well enough and infliximab is not suitable, or • biological treatment cannot be tolerated or is not working well enough,and • the company provides it according to the commercial arrangement.	 For both the TNF-alpha inhibitor-naive and TNF-alpha inhibitor-experienced subgroups, a greater proportion of people who had ozanimod experienced clinical remission than those in the placebo group at the end of induction and maintenance (18.4% vs. 6.0%; P<0.001). These findings were all statistically significant except for the TNF-alpha inhibitor-experienced subgroup at the end of induction. 47.8% (n=205) of patients in the Ozanimod group demonstrated clinical response compared with 25.9% (n=56) in the placebo group (P<0.001) Endoscopic improvement was achieved in 27.3% (n=117) of Ozanimod patients compared with 11.6% (n=25) of placebo patients (p<0.001) 12.6% (n=54) of Ozanimod patients showed mucosal healing vs. 3.7% (n=8) for placebo (p<0.001)
Mirikizumab	TA925	Oct-23	Mirikizumab is recommended as an option for treating moderately to severely active ulcerative colitis in adults when conventional or biological treatment cannot be tolerated, or the condition has not responded well enough or lost response to treatment, only if:	Lucent-1 was an intravenous induction study with treatment of up to 12 weeks, followed by a 40 week subcutaneous randomised withdrawal maintenance study (LUCENT 2), representing at least 52 weeks of therapy. Lucent-1: Clinical remission: mirikizumab treatment group (n=210/868; 24.2%) vs placebo (n=39/294; 13.3%) at week 12 (P<0.001). Clinical response: mirikizumab treated group (n=551/868; 63.5%) vs placebo (n=124/294; 42.2%) at week 12 (P<0.001;

a tumour necrosis factor	Lucent-2: Among patients who achieved a clinical response with
(TNF)-alpha inhibitor has not	mirikizumab at week 12 in LUCENT-1;
worked (that is the condition has	Clinical remission (the primary endpoint) in the mirikizumab
not responded well enough or	treated group (n=182/365; 49.9%) vs placebo group (n=45/179;
has lost response to treatment)	25.1%) at week 40 of LUCENT-2 (P<0.001).
or	
	In biologic-naïve patients: Clinical response: mirikizumab treated
a TNF-alpha inhibitor cannot be	group (n=118/229; 51.5%) vs placebo group (n=35/114; 30.7%) at
tolerated or is not suitable and	week 40 of LUCENT-2.
the company provides it	In biologic-failed patients: Clinical response: mirikizumab treated
according to the commercial	group (n=59/128; 46.1%) compared to the placebo group
arrangement.	(n=10/64; 15.6%) at week 40 of LUCENT-2.

Appendix 2:

Inflammatory Bowel Disease (IBD) HCD Pathway Cost profiling sheet for Advanced Therapies

Davia	Brand name	Cost tier	Mode of action	Douto /form	Crohn's disease	Ulcerative Colitis
Drug				Route/form		
Adalimumab biosimilar	Imraldi	£	TNF inhibitor	Subcut syringe/pen	YES	YES
Infliximab biosimilar	Flixabi	£	TNF inhibitor	IV vial for infusion*	YES	YES
Infliximab biosimilar	Remsima	£	TNF inhibitor	IV vial for infusion*	YES	YES
Filgotinib	Jyseleca	£	JAK inhibitor	Oral Tablet	NO	YES
Adalimumab biosimilar	Amgevita	££	TNF inhibitor	Subcut syringe/pen	YES	YES
Adalimumab originator	Humira	££	TNF inhibitor	Subcut syringe/pen	YES	YES
Infliximab biosimilar	Inflectra	££	TNF inhibitor	IV vial for infusion*	YES	YES
Upadaticinib	Rinvoq	££	JAK inhibitor	Oral tablet	YES	YES
Infliximab (S/C) biosimilar	Remsima (SC)	££	TNF inhibitor	Subcut syringe/pen	YES	YES
Tofacitinib	Xeljanz	££	JAK inhibitor	Oral Tablet	NO	YES
Ozanimod	Zeposia	fff	Sphingosine 1-phosphate receptor modulator	Oral capsule	NO	YES
Golimumab	Simponi	££££	TNF inhibitor	Subcut syringe/pen	NO	YES
Infliximab originator	Remicade	££££	TNF inhibitor	IV vial for infusion*	YES	YES
Ustekinumab	Stelara	££££	IL23&IL12 inhibitor	Subcut syringe/pen	YES	YES
Vedolizumab IV	Entyvio	££££	α4β7 integrin inhibitor	IV vial for infusion*	YES	YES
Vedolizumab SC	Entyvio	£££££	α4β7 integrin inhibitor	Subcut syringe/pen	YES	YES
Mirikizumab	Omvoh	£££££	IL23 p19 inhibitor	IV induction* and Subcut maintenance	NO	YES
Risankizumab	Skyrizi	£££££	IL23 inhibitor	IV induction and Subcut maintenance	YES	NO

*Please note outpatient administration tariff has not been included in the drug costs.

*VAT has been included for drugs not delivered via homecare route.

Appendix 3:

Kent and Medway IBD HCD Working Group attendees (8/11/22-31/5/23):

Thelma Okunuga (TO) (Lead medicines optimization pharmacist ICB)

Nicola Grasso (NG) (IBD nurse DVH)

Jonathan Bailey (JB) (Deputy chief pharmacist MTW)

Kris Jones (KJ) (Chief pharmacy technician MTW)

Krupesh Haria (KH) (Clinical Effectiveness Manager | Integrated Health and Care Services

NHS South, Central and West)

Golnaz Douraghi-zadeh (GD) (Lead pharmacist EKHUFT)

Dr Paul Blaker (Gastroenterologist MTW),

Glyn Scott (Consultant nurse EKHUFT),

Dr Arun Dhiman (Gastroenterologist EKHUFT)

Marie Owens (Lead Pharmacist MFT)

James Hartwell (Lead Pharmacist DVH)

Philip Mairs (Gastroenterology Consultant DVH)

Iona Bell (Gastroenterologist MTW)

References:

- NICE Guideline 129 (NG129), Crohn's disease: management. May 2019.2
- NICE Crohn's disease pathway (see: https://pathways.nice.org.uk/pathways/crohns disease
- NICE Guideline 130 (NG130), Ulcerative colitis: management. May 2019.
- NICE Ulcerative Colitis pathway (see: https://pathways.nice.org.uk/pathways/ulcerative colitis
- www.medicines.org.uk .; Humira [®] (adalimumab) Summary of Product Characteristics (SPC)
- www.medicines.org.uk . Remicade [®] (infliximab) Summary of Product Characteristics (SPC).
- www.medicines.org.uk . Simponi [®] (golimumab) Summary of Product Characteristics (SPC)
- www.medicines.org.uk . Stelara [®] (ustekinumab) Summary of Product Characteristics (SPC).
- www.medicines.org.uk . Entyvio [®] (vedolizumab) Summary of Product Characteristics (SPC)
- www.medicines.org.uk . Xeljanz [®] (tofacitinib) Summary of Product Characteristics (SPC)
- https://www.nice.org.uk/guidance/ta856/resources
- https://www.nice.org.uk/guidance/ta456/resources/ustekinumab-for-moderately-to-severely-active-crohnsdisease-after-previous-treatment-pdf-82604848449733
- https://www.nice.org.uk/guidance/ta352/resources/vedolizumab-for-treating-moderately-to-severely-active-crohns-disease-after-prior-therapy-pdf-82602664948933
- <u>https://www.nice.org.uk/guidance/ta187/resources/infliximab-and-adalimumab-for-the-treatment-of-crohns-disease-pdf-82598501180869</u>
- https://www.frontiersin.org/articles/10.3389/fmed.2022.897936/full
- https://www.nice.org.uk/guidance/ta925/resources/mirikizumab-for-treating-moderately-to-severely-activeulcerative-colitis-pdf-82615549283269