

## Joint Formulary Committee (JFC): Minutes

Minutes from the meeting held on 20<sup>th</sup> November 2025

		Present	Apologies
<b>Members</b>			
Prof A Hingorani (Chair)	NCL JFC Chair	✓	
Dr B Subel	NCL JFC Vice Chair	✓	
Ms L Coughlan	NCL ICB, Deputy Chief Clinical Officer & ICS Chief Pharmacist	✓	
Dr A Scourfield	UCLH, DTC Chair	✓	
Mr J Harchowal	UCLH, Chief Pharmacist	✓	
Ms W Spicer	RFL, Chief Pharmacist	✓	
Dr J Cross	RFL, DTC Chair	✓	
Dr P Jasani	RFL, DTC Deputy Chair		✓
Dr K Boleti	RFL, DTC Deputy Chair		✓
Dr K Tasopoulos	RFL, DTC Deputy Chair	✓	
Ms S Stern	RFL, Deputy Chief Pharmacist	✓	
Dr M Kelsey	WH, DTC Chair	✓	
Mr S Richardson	WH, Chief Pharmacist	✓	
Dr S Ishaq	WH, Consultant Anaesthetist	✓	
Dr A Worth	GOSH, DTC Chair		✓
Ms J Ballinger	GOSH, Chief Pharmacist		✓
Dr M Henley	RNOH, DTC Chair		✓
Mr A Shah	RNOH, Chief Pharmacist		✓
Prof A Tufail	MEH, DTC Chair		✓
Ms N Phul	MEH, Chief Pharmacist		✓
Ms L Reeves	NLMHP, Chief Pharmacist		✓
Ms R Clark	NCL ICB, Assistant Director of Medicines Optimisation	✓	
Ms M Kaur-Singh	NCL ICB, Head of Medicines Planning & Operations	✓	
Ms EY Cheung	NCL ICB, Head of Quality and Improvement		✓
Ms K Petrou	NCL ICB, Community Pharmacy Clinical Lead		✓
Dr S Ghosh	Enfield Unity PCN, Clinical Director; Enfield GP Federation, Co-Chair	✓	
Dr D Heaney	UCLH, Consultant Neurologist		✓
Mr S Jenkinson	RFL, Lead Pharmacist Cancer Services	✓	
<b>Attendees</b>			
Ms C Tse	IPMO Programme Team, JFC Principal Pharmacist	✓	
Ms S Sanghvi	IPMO Programme Team, JFC Principal Pharmacist	✓	
Ms K Leung	IPMO Programme Team, JFC Senior Pharmacist	✓	
Ms M Darjee	IPMO Programme Team, JFC Senior Pharmacist	✓	
Ms M Butt	IPMO Programme Team, Director	✓	
Ms S Amin	IPMO Programme Team, Lead Pharmacist	✓	
Ms I Samuel	RFL, Formulary Pharmacist	✓	
Mr H Shahbakhti	RFL, Formulary Pharmacist		✓
Mr A Barron	UCLH, Principal Pharmacist	✓	
Mr S O'Callaghan	UCLH, Formulary Pharmacist	✓	
Ms H Thoong	GOSH, Formulary Pharmacist	✓	
Mr D Sergian	MEH, Formulary Pharmacist	✓	
Mr W Li	MEH, Formulary Pharmacist		✓
Ms J Bloom	MEH, Associate Chief Pharmacist	✓	

Ms A Bathia	RNOH, Formulary Pharmacist		✓
Ms S Ahmed	WH, Formulary Pharmacist	✓	
Ms Y Lam	UCLH, Formulary Pharmacist		✓
Ms M Thacker	GOSH, Deputy Chief Pharmacist	✓	
Mr J Modha	NHSE, Specialised Commissioning Pharmacist	✓	
Ms A Blochberger	NHSE, Chief Pharmacist – Specialised Commissioning		✓
Mr J Flor	WH, Lead Pharmacist		✓
Ms R Allen	UCLH, Commissioning Pharmacist		✓
Mr A Fazal	RFL, Principal Pharmacist	✓	
Mr G Grewal	RFL, Deputy Chief Pharmacist		✓
Ms O Odejide	NCL ICB, Prescribing Advisor	✓	
Ms C Weaver	NCL ICB, Senior Prescribing Advisor – Quality and Improvement	✓	
Mr S Mahal	GOSH, Lead Pharmacist – Clinical Services	✓	
Ms A Coker	NLFT, Lead Pharmacist – Clinical Services	✓	
Ms N Patel	RFL, Pharmacist Team Manager – Critical Care	✓	
Ms A Connolly	NLFT, Interim Associate Chief Pharmacist	✓	
Dr R Sekaran	NLFT, Consultant C&A Psychiatrist	✓	
Ms H Matthews	UCLH, Formulary Pharmacist	✓	
Dr G Chiaro	UCLH, Consultant Neurologist	✓	
Ms P Mehta	NCL ICB, Senior Prescribing Advisor – Planning and Operations	✓	
Dr P Harrow	UCLH, Consultant Gastroenterologist	✓	
Ms M Desai	UCLH, Specialist Oncology Pharmacist	✓	
Ms J Toft	UCLH, Specialist Pharmacist Inflammatory Bowel Disease	✓	
Ms N Taherzadeh	RFL, Principal Pharmacist – Gastroenterology & Nutrition	✓	
Ms S Maru	IPMO Programme Team, JFC Senior Pharmacist (Observer)	✓	
Ms H Akthar	RFL, Clinical Pharmacist (Observer)	✓	

## 2. Meeting attendees

Prof Hingorani welcomed members, observers, and applicants to the meeting (see above). Dr Jenny Cross (RFL, DTC Chair) was welcomed as a new member of the Committee. The Committee thanked Ms Cecilia Tse (IPMO Programme Team, Principal Pharmacist) and Ms Madhuri Darjee (IPMO Programme Team, JFC Support Pharmacist) for their contributions to the Committee and wished them luck in their future endeavours. The Committee welcomed back Ms Sonali Sanghvi (IPMO Programme Team, Principal Pharmacist), who has returned from maternity leave.

## 3. Members' declaration of interests

The Declarations of Interests register for Committee members was included for information. No further interests relevant to the agenda were declared by members or attendees present.

## 4. Minutes and abbreviated minutes of meetings on 16<sup>th</sup> October 2025

Minutes and abbreviated minutes of the 16<sup>th</sup> October 2025 meeting were ratified. Ms Weaver informed the Committee that the migraine short-life working group agreed on audit standards for the migraine prevention high-cost drugs pathway, specifying that 20% of patients are expected to switch to second-line treatment with galcanezumab; this has been added as a post-meeting note to the October 2025 JFC minutes.

## 5. Review of action tracker

Action tracker included for information. Closed actions have been updated on the tracker.

## 6. JFC Outstanding items and workplan

These items were included for information only. Any questions should be directed to Ms Sanghvi.

## 7. Local DTC recommendations/minutes

Date	Drug and Indication	DTC Decision and Details	JFC recommendation
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September 2025	[FOC Scheme] Durvalumab for gastric and gastroesophageal junction cancer *†	<b>Reviewed by:</b> RFL <b>Drug:</b> Durvalumab <b>Indication:</b> For gastric and gastroesophageal junction cancer <b>Decision:</b> Approved <b>Prescribing status:</b> Restricted to secondary care only <b>Funding source:</b> Free of charge via manufacturer <b>Additional information:</b> N/A <b>Fact sheet or Shared care required:</b> N/A	<b>To add to the NCL Joint Formulary</b>
September 2025	Abiraterone for high-risk non-metastatic prostate cancer [Private patients only]	<b>Reviewed by:</b> RFL <b>Drug:</b> Abiraterone <b>Indication:</b> For high-risk non-metastatic prostate Cancer <b>Decision:</b> Approved <b>Prescribing status:</b> Restricted to secondary care only <b>Funding source:</b> Private patients (top-up care) <b>Additional information:</b> N/A <b>Fact sheet or Shared care required:</b> N/A	<b>Approved for RFL only [Private patients only]</b>
October 2025	Benzyl benzoate 25% lotion for treatment-resistant scabies	<b>Reviewed by:</b> UCLH <b>Drug:</b> Benzyl benzoate 25% topical lotion (Applied daily for 3 days in the evening on the whole body sparing the scalp, if hair bearing, and not washed off before midday of the 4th day) <b>Indication:</b> For treatment-resistant scabies <b>Decision:</b> Approved <b>Prescribing status:</b> Restricted to secondary care only <b>Funding source:</b> In-tariff <b>Additional information:</b> N/A <b>Fact sheet or Shared care required:</b> N/A	<b>To add to the NCL Joint Formulary</b>
October 2025	Methoxyflurane (Penthrox®) for brachytherapy implant removal	<b>Reviewed by:</b> UCLH <b>Drug:</b> Methoxyflurane (Penthrox®) <b>Indication:</b> For brachytherapy implant removal <b>Decision:</b> Not Approved	<b>Not approved</b>

\*Subject to funding consideration; †The relevant commissioner should be notified in line with NCL Free of Charge scheme guidance. Approval is conditional on the provision of a free of charge scheme agreement and funding statement.

## 8. Matters arising

### 8.1. CAMHS Formulary

The Committee were informed that North London Foundation Trust (NLFT) has developed a Children and Adolescent Mental Health services (CAMHS) medication formulary, which was approved by their local Drug and Therapeutics Committee (DTC) in January 2025.

The CAMH services are expected to expand across NCL Trusts, and JFC Secretariat have been supporting the NLFT CAMHS pharmacy team to enhance the formulary to incorporate evidence-based recommendations, define the prescribing status for the medicines listed and identify the monitoring responsibilities between secondary and primary care. The formulary is intended to ensure that safe and appropriate medication options are available for children and young people across NCL and that the NCL Joint Formulary is reflective of the CAMHS formulary choices.

The proposed formulary consists of 24 medicines for 11 mental health conditions for CAMH services. The NLFT team have highlighted where drug-indication pairs have an existing paediatric evidence base from NICE guidance, the BNF-C, the Maudsley Prescribing Guidelines (MPG), and previous local DTC or JFC reviews. It is proposed that medicines with existing prescribing recommendations via these trusted sources, i.e. 21 drug-indication pairs, would be deemed clinically appropriate and would not require further JFC evaluation of the

evidence base. Three drug-indication pairs will need a full JFC formulary application and evidence review, as they are not covered by NICE, BNFC or MPG. These are:

- Zuclopentixol (tablets & long-acting decanoate injection) for psychosis
- Aripiprazole for conduct disorder
- Zopiclone for insomnia

Following discussion with the CAMHs consultant psychiatrists at NLFT, Tavistock and Portman NHS Trusts and specialist CAMHs pharmacists, the NLFT team have proposed the interface prescribing RAG rating for the medicines listed in the formulary. The JFC members flagged that further consultation with primary care teams regarding the proposed RAG status is required, particularly taking into account the paediatric cohort. Additionally, the JFC members recommended for the proposed age ranges and doses to be clearly defined in the document. The Committee also recommended reviewing the interface prescribing arrangements within other London ICBs to support regional alignment. The Committee recommended the NLFT team work with JFC secretariat and the ICB medicines optimisation team to review and consult on RAG statuses before proceeding for approval via relevant ICB governance committees and the Interface Prescribing Group.

The Committee agreed the following next steps for the NCL CAMHs formulary:

- Drug-indication pairs with existing prescribing recommendations in BNFC, NICE or MPG will be deemed clinically appropriate in line with these trusted sources and will not require further JFC evidence review.
- Drug-indication pairs that have undergone local DTC reviews to be highlighted and brought for ratification at JFC however, further review of RAG statuses in consultation with primary care should be undertaken.
- The three drug-indication pairs that do not have existing recommendations in BNFC, NICE or MPG will require an application for addition to the formulary and JFC evaluation of the evidence base:
  - Zuclopentixol (tablets & long-acting decanoate injection) for psychosis,
  - Aripiprazole for conduct disorder,
  - Zopiclone for insomnia.
- All future additions to the CAMHs formulary should follow usual JFC/DTC processes and require a drug application and evidence review.
- JFC secretariat and NLFT team to review whether any of the proposed formulary options are high-cost drugs and/or will create a significant budget impact.
- NLFT team to engage with the ICB medicines optimisation team and JFC secretariat to progress with primary care consultation and consideration of proposed RAG rating, and to take these via the ICB and interface prescribing group sign-off process thereafter. Clarification of the proposed age range and dosing in the formulary would aid this process and should be aligned with licensing or information from the trusted resources.

Once the above steps have been completed, the final NCL CAMHs formulary will be brought back to JFC for final approval and implementation.

## 8.2. Rybelsus® (Semaglutide tablets) NCL ICB memo

The Committee were informed that a new formulation of oral semaglutide (Rybelsus®) tablets with increased bioavailability is being introduced in the UK. The new formulation, despite changes in tablet strengths, is bioequivalent to the original formulation and maintains the same efficacy, safety, and method of administration.

The Committee heard from Ms Mehta that the original formulation is expected to be phased out and become unavailable by the end of January 2026. During this period, the original and new strengths/ formulations will both exist in the UK supply chain and remain available for issuing on prescribing systems. To mitigate the risk of prescribing and dosing errors during this interim period, an NCL ICB memo has been circulated widely across NCL ICS and Scriptswitch and EMIS searches have been implemented. Ms Mehta informed the Committee that switching of existing patients to the new semaglutide formulation will be coordinated by primary care and aims to be complete by 31st January 2026.

## 8.3. NCL ICB Finance Update

The NCL ICB financial recovery plan was formally communicated to NCL Provider Trusts in November. This includes the key message that for 2025/26, NCL ICB will only approve funding for high-cost drug treatments supported by a NICE Technology Appraisal (TA) which is in line with the statutory duties of the ICB. Therefore, any requests submitted to NCL JFC for the use of high-cost drugs outside NICE-approved indications will require Trust approval for internal funding.

## 8.4. Ophthalmology High-cost Drug Pathway Updates – nAMD and RVO

Ms Amin presented updates to the ophthalmology high-cost drug pathways for neovascular age-related macular degeneration (nAMD) and retinal vein occlusion (RVO), which were discussed and approved by the NCL Ophthalmology HCD Working Group:

- Change of faricimab minimum dosing interval from 3-weekly to 4-weekly for maintenance treatment, in line with NHSE nAMD and RVO pathways and faricimab licensing.
- Faricimab to remain as second-line treatment in the NCL nAMD pathway. The NHSE nAMD pathway has been updated to remove the preference for aflibercept 8mg in the second-line setting due to a faricimab rebate scheme. However, no changes have been made to the NCL nAMD pathway and faricimab remains preferred second-line treatment, in line with the NCL HCD Commissioning Principles, as faricimab remains more expensive than aflibercept 8mg despite the introduction of the rebate scheme.
- Updated cost RAG rating for aflibercept 2mg to reflect the new biosimilar which will be available from December 2025.

The Committee approved the proposed updates to the NCL nAMD and RVO HCD pathways.

## 9. Medicine Reviews

### 9.1. Atomoxetine and pyridostigmine for neurogenic orthostatic hypotension (Applicant: Dr G Chiaro, UCLH)

The Committee considered: a) a historical off-label review for pyridostigmine and, b) an application for atomoxetine, for the treatment of neurogenic orthostatic hypotension (nOH). Orthostatic hypotension is defined as a fall in systolic blood pressure (SBP) of 20mmHg or more, or diastolic blood pressure (DBP) of 10mmHg or more, within 3 minutes of standing or tilting the body to at least 60-degree angle on a tilt bed. nOH typically results from insufficient noradrenaline release from sympathetic nerves due to autonomic dysfunction, characterised by failure to provide adequate autonomic postural responses, most prominently systemic vasoconstriction and a compensatory increase in heart rate sufficient to maintain blood pressure. nOH may occur in association with several systemic and neurodegenerative diseases.

#### 9.1.1 Pyridostigmine

Pyridostigmine, an acetylcholinesterase inhibitor, has been used by the autonomic team for over 10 years for the treatment of nOH. The proposed place in therapy is as second line treatment as an add-on treatment option for adult patients with nOH. The proposed dose is 30-90mg three times a day.

There are no UK consensus guidelines on the management of nOH. However, the NICE Evidence Summary for the use of midodrine in nOH due to autonomic dysfunction (2013) references pyridostigmine as an alternative treatment option. Pyridostigmine is also recognised as a treatment option for nOH included as a treatment option in standard resources such as Martindale and Micromedex, as well as the following references: BMJ Best Practice (2024), European Federation of Neurological Societies (2011), and US consensus guideline (2017) and American Society of hypertension (ASH) guidelines (2013).

Pavic et al (2015), a systematic review and meta-analysis on pyridostigmine in the management of orthostatic hypotension, reported a non-statistically significant amelioration in the reduction in SBP in patients who received pyridostigmine versus those who received placebo (-2.07mmHg, 95% CI -4.20 to 0.06).

In terms of safety, the proposed dose of 30-90mg three times daily is within the dose range for myasthenia gravis, a licensed indication for pyridostigmine. Side effects listed in the SPC include muscarine-like adverse effects such as nausea, vomiting, diarrhoea, abdominal cramps, and salivation. Pavic et al (2025) reported minimal adverse drug reactions across the included studies.

The proposed prescribing status for pyridostigmine is Amber 2, and the applicants outlined that prescribing has been routinely transferred to primary care historically with no concerns raised by GPs.

#### 9.1.2 Atomoxetine

Atomoxetine, a selective noradrenaline reuptake inhibitor, is licensed for ADHD at a dose of 40-100mg once daily. The application proposes atomoxetine to be used off-label as a second line treatment option as monotherapy or add-on for adult patients with nOH in patients with normal supine noradrenaline levels, under the advice of the autonomic unit. The proposed dosing is 10mg daily maintained for 7-14 days then titrated up according to clinical response and tolerability up to a maintenance dose of 18-25mg daily. Atomoxetine is proposed to have an amber RAG status, indicating it is for secondary care initiation and primary care continuation after at least 3 months.

Verma et al (2025), a systematic review of drug treatment in nOH included 5 RCTs (n= 211) that assessed atomoxetine. The studies recruited adults and included predominantly primary nOH, however, some studies included atomoxetine at doses which exceed that which is being proposed here (>25mg versus 10-25mg daily). Reported outcomes of interest include changes in standing BP and orthostatic hypotension Questionnaire (OHQ), a validated patient-reported outcome measure designed to assess symptom severity (OHSA) and impact of symptoms on daily life (OHDSA). The Committee considered the five relevant trials that were included in Verma et al:

- Okamoto et al (2019, n= 12), a single-dose cross-over RCT, found no significant difference in seated or standing SBP between placebo and atomoxetine or between pyridostigmine and placebo. It found a combination of pyridostigmine and atomoxetine significantly increased standing blood pressure compared to placebo ( $+20 \pm 9$  mmHg versus  $-2 \pm 4$  mmHg;  $p < 0.001$ ).
- Ramirez et al (2014, n= 69), a single-dose cross-over RCT, investigated the effects of atomoxetine versus midodrine or placebo. The study reported that atomoxetine significantly increased standing SBP compared with placebo ( $+20$  mmHg, 95% CI 13-27,  $p < 0.001$ ). The study found no statistically significant difference in OHQ composite score between atomoxetine and midodrine.
- Byun et al (2020; n= 50), a randomised open-label study, compared atomoxetine to midodrine for the treatment of nOH. The study reported that patients in the atomoxetine ( $-13.5$  mmHg,  $p < 0.01$ ) and midodrine groups ( $-10.5$  mmHg,  $p < 0.01$ ) experienced statistically significant changes from baseline in orthostatic SBP drops at 1 month. However, there was no significant difference between patients in the atomoxetine and midodrine groups (difference of  $-3$  mmHg,  $p = 0.404$ ). Atomoxetine was found to significantly improve OHQ composite score at 1 month compared to baseline ( $-4.1$ ,  $p > 0.05$ ).
- NCT02784535 (n= 48), a cross-over RCT, included a 4-week randomised phase (atomoxetine versus placebo) followed by 1-week washout period and 4-week crossover randomised phase. The study reported patients experienced reduction in standing SBP on atomoxetine ( $-2.44$  mmHg versus  $3.88$  mmHg) and reduction in OHQ composite score ( $-0.5 \pm -1.58$  versus  $0.58 \pm 2.39$  units) when compared to placebo.
- Mwesigwa et al (2024; n= 40), a double-blind, placebo-controlled cross-over study, included a 4-week randomised phase with atomoxetine (10-18mg) followed by 1-week washout period and 4-week crossover randomised phase (atomoxetine or placebo). The study reported no statistically significant change from baseline in OHQ composite score at 2 weeks (atomoxetine versus placebo,  $-0.3 \pm 1.7$  versus  $-0.4 \pm 1.4$ ;  $p = 0.806$ ). The authors also reported no statistically significant change in standing SBP after 1 minute at 2 weeks between the atomoxetine and placebo group (atomoxetine versus placebo,  $5 \pm 18.0$  versus  $3 \pm 16.7$ ;  $p = 0.589$ ). The authors concluded that *"while previous evidence suggested that acute doses of atomoxetine might be efficacious in treating nOH; results of this clinical trial indicated that it was not superior to placebo to ameliorate symptoms of nOH"*.

Using the GRADE framework, the authors of Verma et al (2025) concluded that for the use of atomoxetine in the treatment of nOH, there was 'moderate' evidence for the improvement in standing SBP and 'very low' evidence for symptom improvement (OHQ/ OHSA). The Committee were also informed that the use of atomoxetine is recommended as an option after midodrine by BMJ Best Practice (2024) and it is included in the ASH guidelines (2013) as an option after standard of care treatment, fludrocortisone and midodrine.

In terms of safety, the Committee were informed that it was difficult to draw conclusions regarding safety from the trials discussed due to the small sample sizes. There were a range of minor adverse drug reactions reported from studies, but it was highlighted that Okamoto et al (2019) and Ramirez et al (2014) were single-dose studies. The SPC for atomoxetine for myasthenia gravis states that the most common adverse events in adults were decreased appetite (14.9%), insomnia (11.3%) headache (16.3%), dry mouth (18.4%) and nausea (26.7%). The use of atomoxetine is contraindicated in patients with severe cardiovascular or cerebrovascular disorders.

The anticipated budget impact is estimated to be between £26K to £32K per annum for 100 patients.

The Committee heard from Dr Chiaro that nOH was a challenging chronic condition to treat with varied underlying pathophysiology. He acknowledged the limitations of the existing literature and noted that these studies pooled patients with heterogeneous underlying causes for nOH into a single cohort, and it would not be expected that they would all respond to atomoxetine. Dr Chiaro highlighted that atomoxetine would be most beneficial to patients with normal noradrenaline levels due to its effects on noradrenaline transmission and spillover. When considering other treatment options for nOH, the Committee also heard that droxidopa, a pro-drug of noradrenaline, is licensed in the USA but this is currently unavailable in the EU and UK market.

The Committee discussed the following concerns when considering atomoxetine as a treatment option for nOH:

- Many studies relating to atomoxetine are single-dose studies which are indicative of the immediate pharmacological effect of the drug on blood pressure but do not provide insight into the treatment of nOH, a chronic condition, and what impact it has on patients' lives in the long term.
- Within the published literature, there are inconsistencies in outcomes and the reporting of outcome measures which undermine the conclusions of the existing studies. Where patient symptom outcomes were reported to be beneficial, the absolute differences were noted to be small and the clinical significance questionable.
- The results from two RCTs of longer-term treatment of nOH with atomoxetine were conflicting. Byun et al (2020) reported an approximately 4-point difference in nOH symptom scores (with score ranges of 0-40 and 0-60) in favour of atomoxetine vs placebo, but Mwesigwa et al (2024) reported no difference in average symptom scores between those allocated to atomoxetine vs placebo. The Committee noted that the Mwesigwa trial allowed background therapy with fludrocortisone (more closely reflecting the proposed use of atomoxetine) while the Byun study did not provide information on background therapy.

Dr Chiaro acknowledged the limitations of the existing evidence base and was of the view that the key factor would be appropriate patient selection.

*In camera*, the Committee noted that pyridostigmine is established practice with supporting recommendations from NICE and international guidelines, and low risk profile in terms of safety and budget impact, and some evidence for efficacy. For atomoxetine, the Committee remained unconvinced that the existing evidence base demonstrated effectiveness on outcomes important to patients. The Committee noted the applicant's comments regarding the heterogeneity of the patient group and suggested that if further evidence emerged that supported the use of atomoxetine in a clearly defined subgroup of patients with nOH (including parameters for identifying this group) then the applicants would be welcome to make a new submission. Primary care representatives noted the proposed amber status and highlighted that any future submission should clarify the roles and responsibilities for monitoring, due to the chronic nature of nOH and need for long-term management. The Committee noted that the use of pyridostigmine for this indication was established practice.

In summary, the Committee approved the addition of pyridostigmine to the Joint Formulary for the treatment of nOH. With regards to atomoxetine, based on the conflicting study results and lack of evidence showing a significant treatment effect, the Committee could not recommend the use of atomoxetine for nOH.

**Drug:** Pyridostigmine

**Indication:** Neurogenic orthostatic hypotension

**Decision:** Approved

**Prescribing status:** Specialist initiation with maintenance in primary care (Amber-2)

**Funding source:** In-tariff

**Fact sheet or shared care required:** N/A

**Additional information:** N/A

**Drug:** Atomoxetine

**Indication:** Neurogenic orthostatic hypotension

**Decision:** Not approved

**Additional information:** N/A

## 9.2. [FOC Scheme] Vedolizumab for immune checkpoint inhibitor (ICI) induced colitis (Applicants: Dr P Harrow, UCLH; Ms H Shaw, UCLH (in absentia); Ms M Desai, UCLH; Ms J Toft, UCLH)

The Committee considered an application for a free-of-charge (FOC) scheme for vedolizumab (administered as 300mg via IV infusion at week 0, 2, and 6), a humanised monoclonal antibody, for off-label treatment of immune checkpoint inhibitor (ICI) induced colitis. ICIs are a type of immunotherapy for the treatment of cancer and block the inhibition of lymphocytes (such as PD-1, PD-L1, CTLA4) thereby stimulating the immune system to kill tumour cells. Due to their mechanism of action, ICIs can cause inflammatory and autoimmune complications which can affect other body systems, most commonly, the skin, colon, and endocrine organs.

ICI-induced colitis is an inflammatory condition affecting the colon and symptoms include diarrhoea, abdominal pain, and rectal bleeding. ICI-induced colitis typically responds to high-dose steroids but in some patients, further treatment with biologics may be required.

The proposed place in therapy for FOC vedolizumab is third line following first-line treatment with high-dose steroids, and second-line treatment with three doses of infliximab (April 2021 JFC). The use of vedolizumab for

ICI-induced colitis is endorsed by the European Society of Medical Oncology (ESMO) ('Management of toxicities from immunotherapy', 2022) and the British Society of Gastroenterology (BSG) ('Immune checkpoint Inhibitor Colitis Guidelines', 2025). The Committee were informed that vedolizumab is licensed for the treatment of ulcerative colitis and Crohn's disease.

In terms of efficacy, Shambhavi et al (2025) conducted a systematic review and meta-analysis on the efficacy of infliximab versus vedolizumab in the management of immune checkpoint inhibitor-induced colitis. The review included 645 patients from six retrospective cohort studies who had been treated with vedolizumab. The studies included patients treated with systemic steroids in addition to either vedolizumab or infliximab monotherapy or sequential infliximab followed by vedolizumab treatment. The outcomes of the systematic review and meta-analysis were remission of immune-mediated colitis (IMC), recurrence of IMC, and median duration of steroid exposure with either vedolizumab or infliximab monotherapy. The review reported that in comparison to infliximab, vedolizumab was associated with lower recurrence rates (odds ratio (OR): 0.29, 95% confidence interval (CI): 0.15 - 0.54) and shorter systemic steroid exposure (mean difference (MD): -16.88 days, 95% CI: -20.47 to -13.30). The analysis of the remission rate included patients with ICI-mediated colitis who were treated with infliximab and then followed by vedolizumab due to a lack of optimal response with infliximab alone. The result indicated vedolizumab had higher rates of remission however there was no statistically significant difference in remission rates in comparison to infliximab (OR: 3.16, 95% CI: 0.29 - 34.01).

In terms of safety, Shambhavi et al indicated that two out of six studies included safety analysis which were favourable to vedolizumab due to its gut-selective mechanism of action. The analysis highlighted a study by Zou et al which reported lower rates of infections (25% with infliximab versus 19% with vedolizumab), reduced systemic immunosuppression, and decreased risk of cancer progression (53% with infliximab versus 34% with vedolizumab).

The Committee heard from Dr Harrow that clinical teams are experienced with routine use of vedolizumab in the treatment of inflammatory bowel disease (IBD) with minimal safety concerns, and that anecdotally, patients with ICI-colitis have responded well to vedolizumab. The Committee agreed that the evidence presented supports the use of vedolizumab as a treatment option for ICI-induced colitis, and that under the proposed FOC scheme the budget impact would be low. Dr Harrow confirmed that use of vedolizumab would be restricted to the three doses outlined in the FOC scheme, and that if colitis persisted beyond this, an underlying IBD would suspect, and patients would be treated in line with the chronic IBD treatment pathway.

In summary, the Committee agreed to approve the FOC scheme for vedolizumab, as third-line treatment, for the treatment of ICI-induced colitis in line with the terms of the FOC scheme only.

**Drug:** Vedolizumab

**Dose:** 300mg IV at week 0, 2, and 6

**Indication:** Third-line treatment for immune checkpoint inhibitor (ICI) induced colitis

**Decision:** Approved

**Prescribing status:** Restricted to secondary care only

**Funding source:** Free of Charge Scheme

**Fact sheet or shared care required:** N/A

**Additional information:** N/A

### 9.3. NCL Crohn's Disease Pathway Update – Use of IL-23 agent (guselkumab/risankizumab) ahead of ustekinumab

The Committee considered the use of interleukin (IL-23) agents (guselkumab or risankizumab) ahead of ustekinumab for a defined group of patients with Crohn's disease who fulfil one of the following criteria (1) <16 years old at diagnosis, (2) peri-anal disease, (3) penetrating disease, (4) pan-enteric Crohn's, (5) >1 resection surgery. in the proposed Crohn's disease high-cost drug pathway. The review was brought to JFC because guselkumab and risankizumab are most costly than ustekinumab biosimilar, and therefore the proposal to use them beforehand falls outside of NCL Principles for HCD commissioning. The NICE TAs for IL-23 inhibitors recommend their use following the failure of treatment with an anti- TNF inhibitor (or contraindication to anti-TNF) and regards the agents to have similar efficacy.

GALAXI-2 & 3 (n=1021) were two phase 3, randomised (2:2:2:1), double-blind, triple-dummy trials with head-to-head comparisons of guselkumab (200 mg every 4 weeks or 100 mg every 8 weeks) with an active comparator (ustekinumab) and a placebo. The studies included patients aged ≥18 years with moderate to severe (CDAI 220–450) active Crohn's disease who had failed conventional treatment or previous inadequate response or intolerance to a biological therapy. The severity of the disease was measured by the Crohn's Disease Activity Index (CDAI) score, a 0- 600 scale, with higher score indicating worsened disease. The secondary endpoints were the rate of the endoscopic response, endoscopic remission and clinical response at



week 48 when comparing guselkumab with ustekinumab, and the Committee noted that the studies were not powered to detect a difference in these outcomes. The GALAXI-2&3 studies reported that both guselkumab regimens were statistically superior ( $p < 0.05$ ) to ustekinumab at week 48. The pooled data reported that the guselkumab 100mg group was statistically superior to ustekinumab with respect to endoscopic response (48% vs 37%, difference 11% (95% CI 3–19),  $p = 0.0085$ ), endoscopic remission (33% vs 25%, difference 9% (95% CI 1–16),  $p = 0.024$ ) and clinical remission and endoscopic response (42% vs 34%, difference 8% (95% CI 0–16),  $p = 0.049$ ). Within the guselkumab 200mg group, the studies reported there was a significant difference in endoscopic response (53% vs 37%, difference 16% (95% CI 8–23),  $p < 0.0001$ ), endoscopic remission (37% vs 25%, difference 12% (95% CI 5–20),  $p = 0.0011$ ) and clinical remission and endoscopic response (47% vs 34%, difference 14% (95% CI 6–21),  $p = 0.0005$ ). Although the pooled data did not report a significant difference in the percentage of patients attaining clinical response at week 48 in the guselkumab 200 mg group (70% [65 to 75]; adjusted treatment difference 7% [0 to 15]) or the guselkumab 100 mg group (65% [60 to 71]; adjusted treatment difference 3% [–5 to 10]) versus ustekinumab (63% [95% CI 57 to 68]). The GALAXI-2&3 studies concluded that guselkumab was superior to ustekinumab at week 48 for endoscopic outcomes, which are associated with long term improvement in disease control.

SEQUENCE study ( $n = 520$ ), a head- to head phase 3b, multicentre, open-label, blinded, randomised controlled trial assess the use of risankizumab in comparison to ustekinumab in adults with moderate–severe Crohn’s disease (CDAI 220–450), and endoscopic activity score  $\geq 6$  ( $\geq 4$  if isolated ileal) who had failed at least one anti-TNF treatment. The two primary endpoints were clinical remission at week 24 and endoscopic remission at week 48. The study reported that risankizumab was noninferior to ustekinumab with respect to clinical remission at week 24 (58.6% vs. 39.5%; 95% confidence interval [CI], 6.6 to 30.3). In terms of endoscopic remission at week 48, risankizumab was found to be superior to ustekinumab (31.8% vs. 16.2%; 95% CI, 8.4 to 22.9;  $P < 0.001$ ).

In terms of cost, the use of IL-23 agents (guselkumab or risankizumab) prior to ustekinumab results in a drug budget cost pressure within NCL. The Committee noted the comparative costs [confidential drug prices].

The Committee heard from Dr Harrow that successful use of biologic treatment to achieve control of the disease is more cost effective than patients having repeated admissions, undergoing surgery or being on parenteral nutrition. Therefore, the option to treat selected higher-risk patients with IL-23 agents earlier within the pathway is intended to provide better patient outcomes and result in savings overall across the pathway despite a higher drug cost.

*In camera*, the Committee noted that the evidence suggested a benefit in clinical outcomes with IL-23 agents compared to ustekinumab, but at a considerably higher drug cost. The Committee agreed it was likely that non-drug savings across the pathway would mitigate this, and result in cost-effectiveness overall. It was noted that the clinical working group have defined a specific sub-group who are likely to derive the most benefit and that this was a pragmatic approach to managing the budget impact. The Committee noted that the Crohn’s Disease working group have discussed preferred IL-23 and that there is currently a preference for risankizumab in practice due to a lack of experience with guselkumab but that this will continue to be kept under review as real world evidence emerges.

Overall, the Committee approved the use of IL-23 inhibitors ahead of ustekinumab for patients with Crohn’s disease who fulfil one of the following criteria (1)  $< 16$  years old at diagnosis, (2) peri-anal disease, (3) penetrating disease, (4) pan-enteric Crohn’s, (5)  $> 1$  resection surgery. The Committee encouraged the Crohn’s Disease working group to agree audit standards and work towards achieving savings in other parts of the pathway to offset the higher drug costs, for example by increasing use of subcutaneous vedolizumab.

In summary, the Committee agreed to clinically approved the updated Crohn’s disease high-cost drug pathway including the following updates:

- The inclusion of new NICE TAs for interleukin -23 inhibitors (mirikizumab & guselkumab),
- The inclusion of ustekinumab biosimilar as 1st, 2nd, or 3rd line treatment options,
- Defining cohorts in whom JAK inhibitors are not preferred due to their side effect profile,
- Defining cohorts in whom vedolizumab is preferred due to it being less immunosuppressive,
- The use of ustekinumab 8 weekly dosing for maintenance following IV induction [off-label] for all patients,
- Mirikizumab assigned as ‘not preferred’ interleukin -23 inhibitor,
- The use of interleukin -23 inhibitors (guselkumab/risankizumab) ahead of ustekinumab for defined cohorts.

#### 9.4. NCL Crohn's Disease Pathway Update – Ustekinumab dose escalation from eight weekly to four-weekly dosing (off-label)

The Committee considered the addition of ustekinumab dose escalation (off-label) to the Crohn's disease high-cost drug pathway. Ustekinumab is an established treatment option for Crohn's disease, with the current NCL pathway recommending an 8 weekly maintenance dose can be used off-label post IV induction if the patient has failed prior treatment with a biologic. The proposed pathway suggests escalating the maintenance dose from 90mg 8 weekly to 90mg 4 weekly for patients with inadequate or loss of response to standard dosing frequency and assessing clinical response 12-16 weeks following dose escalation.

In terms of efficacy, the STARDUST study (n= 498) was an open-label, multicentre, randomised phase 3 trial including adults with active, moderate-to-severe Crohn's disease for whom conventional therapy or one biologic therapy, or both, had failed. At week 16, patients with a CDAI improvement of 70 or more points from baseline were randomly assigned (1:1) to receive standard-of-care or treat-to-target maintenance treatment through week 48. A subgroup of patients (approximately 20%) were escalated to every 4 weeks through week 48 if prespecified targets were not met. This study reported there was no significant difference between the treat to target and standard of care arm. The limitations of this study were the treat-to-target arm had only a small proportion of patients needing escalation to 4 weekly, of those on every 12 weeks only ~12% (14/121) escalated; of those on every 8 weekly, ~25% (21/84) escalated to 4 weekly by week 48. As the proportion for patients escalated were small this limits the ability to detect a difference between the two approaches.

RESCUE study (n= 108) was a prospective double-blind, randomised, placebo-controlled trial which evaluated two different ustekinumab reinduction regimens in patients with Crohn's disease who developed secondary loss of response. The patients received a single intravenous (IV) dose of ustekinumab reinduction, then were randomly assigned to blinded maintenance dose 90mg subcutaneous (SC) 4 weekly or 90mg SC 8 weekly for 48 weeks. The study concluded that dose intensification resulted in no significant difference to steroid free or endoscopic remission. The limitation of this study was the sample size and the lack of applicability to the NCL proposal due to the IV loading dose.

Meserve et al (n= 925) conducted a systematic review and meta-analysis including 15 retrospective cohort studies in adults with Crohn's disease with inadequate response or loss of response to standard dose ustekinumab. The outcomes of the review were the rates of achieving clinical response, corticosteroid-free clinical remission, endoscopic response, and/or remission. The review included 83% of patients who underwent dose escalation to either every 4 or 6 weeks as the method of therapeutic intensification. The study showed dose escalation was beneficial in achieving clinical response, with moderate heterogeneity (I<sup>2</sup> =57%) with 55% (95% CI, 49%–61%) of patients achieving clinical response following dose escalation to 4-weekly dosing. The meta-analysis of the cohort studies concluded ustekinumab dose escalation was effective in achieving response in patients with Crohn's disease with inadequate response, or loss of response to standard dose induction and/or maintenance therapy.

In terms of cost, it was noted that drug costs for 4-weekly dose escalation of ustekinumab biosimilar would be lower than switching to alternative higher-cost treatments. It is estimated that the net budget impact for NCL would be a cost saving of approximately £103,000 per year due to delayed use of higher cost drugs.

*In camera*, the Committee noted the inconsistencies in the evidence base, with the two RCTs reporting no significant benefit from dose escalation. However, the Committee discussed the limitation of those studies in terms of applicability to the proposed cohort and dosing regimen and agreed that the results from the larger cohort in the meta-analysis of observational data did suggest that dose escalation could recapture clinical response in approximately half of patients. It was considered to be in patients' interests to potentially extend use of an effective drug, with clear timescales for review of response, and to reserve the use of other more expensive drugs in the pathway. The Committee also noted the potential cost savings to the system. It was noted that this application would be subject to internal funding agreement by Trusts due to current ustekinumab block contract arrangements.

In summary, the Committee agreed to clinically approve the off-label use of ustekinumab 4-weekly dose escalation to the updated Crohn's disease high-cost drug pathway.

**Drug:** Ustekinumab (off-label)

**Dose:** 90mg 4 weekly

**Indication:** Crohn's disease

**Decision:** Approved

**Prescribing status:** Restricted to secondary care only

**Funding source:** Internally funded High Cost Drug

**Fact sheet or shared care required:** N/A

**Additional information:** N/A

## **10. Position statements and guidelines**

Nil

## **11. Sub-Group Updates**

### **11.1. NICE TA Implementation Group Report**

The Committee heard an update from Ms Odejide on the current workplan for the NICE TA Implementation Group. The following updates were highlighted to the Committee:

- Atogepant for preventing migraine [NICE TA973] – Implementation is complete, and the primary care headache pathway has been updated to include atogepant in line with the NICE TA.
- Relugolix for treating hormone-sensitive prostate cancer [NICE TA995] – An updated interface prescribing document is awaiting final sign off following minor amendments.
- Linzagolix for treating moderate to severe symptoms of uterine fibroids [NICE TA996] – Implementation in progress with interface prescribing arrangements to mirror those agreed for Ryeqo® (relugolix - estradiol- norethisterone) for uterine fibroid and endometriosis indications.
- SQ-HDM SLIT (Acarizax®) for treating allergic rhinitis and allergic asthma caused by house dust mites [NICE TA1045] – Implementation is underway with feedback requested from NCL allergy services on the proposed interface prescribing status. UCLH allergists support specialist initiation with continuation of prescribing in primary care after 6- 12 months.
- Betula verrucosa for treating moderate to severe allergic rhinitis or conjunctivitis caused by tree pollen [NICE TA1087] –Current prescribing is predominantly in UCLH. Will be going out for consultation to assess impact on NCL services. A similar approach to Acarizax® will be adopted for implementation.

### **11.2. NCL Pathways Group**

Nil

### **11.3. Interface Prescribing Group Updates**

Nil

## **12. Next meeting**

Thursday 15<sup>th</sup> January 2026

## **13. Any other business**

Nil