

**South East London Integrated Medicines Optimisation Committee
Formulary recommendation**

Reference	153
Intervention:	Cytisine (cytisinicline) 1.5mg tablets for smoking cessation in adults (The active ingredient of cytisine is a plant alkaloid with a chemical structure similar to nicotine)
Date of Decision:	November 2024
Date of Issue:	December 2024
Recommendation	GREEN – can be prescribed within agreed criteria for use in primary or secondary care. Prescribers in primary care may also wish to liaise with local borough smoking cessation services.
Further Information:	<ul style="list-style-type: none"> • Cytisine is licensed for smoking cessation and reduction of nicotine cravings in smokers who are willing to stop smoking. • Cytisine 1.5mg tablets are accepted for use in SEL as a treatment option for smoking cessation in adults aged 18 to 65 years old. • Cytisine tablets can be considered as a first line treatment option when treating nicotine withdrawal and cravings alongside other pharmacotherapies listed in the SEL Adult Joint Medicines Formulary. • Prescribing should be in line with its licence as a single 25 day course. Smoking should be stopped no later than on the 5th day of treatment. • Prescribing should be in line with the tobacco dependence treatment pathway contained within the SEL Chronic Obstructive Pulmonary Disease (COPD) Guideline*. • Patients must be counselled on the treatment schedule for cytisine. • Due to limited clinical experience, cytisine is not recommended for use in patients over 65 years of age. • Further information on cytisine 1.5mg tablets, including side-effects, cautions and contraindications, can be found in the summary of product characteristics (SPC). • The formulary application submitted for cytisine was supported by the six local authorities in South East London (as the commissioners of community smoking cessation services). <p>Note: At the time of approval, updates to include cytisine for smoking cessation within the NICE guideline for tobacco dependence (NG209) are in development. This recommendation will be reviewed following publication of the updated NICE guideline.</p> <p>*An update of the SEL COPD Guideline is in progress at time of writing; these updates will also reflect this formulary recommendation.</p>
Shared Care/ Transfer of care document required:	N/A
Cost Impact for agreed patient group	<ul style="list-style-type: none"> • It is estimated that approximately 900 patients engaged with stop smoking services in SEL will be eligible for cytisine. • This equates to a cost impact of approximately £106,000 per annum (~£5,000 per 100,000 population). A course of treatment with cytisine is less costly vs. treatment with combination nicotine replacement therapy (NRT) and varenicline. Equivalent costs would be £232,944 for NRT and £125,828 for varenicline. • Overall, the availability of cytisine would support local and national programmes to reduce the tobacco dependence and the significant associated cost burden to both the NHS and social care, for example respiratory disease, cardiovascular disease and cancer.
	Acute Trusts/community smoking cessation services

Usage Monitoring & Impact Assessment	<ul style="list-style-type: none"> Acute Trusts to monitor use and submit usage data and audit reports upon request to the Committee.
Usage Monitoring & Impact Assessment continued	<p>SEL Borough Medicines Teams</p> <ul style="list-style-type: none"> Community smoking cessation services are commissioned by local authorities (LA). Borough Medicines teams should work with their LA leads to monitor use locally. Monitor ePACT2 data for primary care prescribing trends. Exception reports from GPs if inappropriate prescribing requests are made to primary care.
Evidence reviewed	<p>References (from evidence evaluation):</p> <ol style="list-style-type: none"> Phusahat P, Dilokthornsakul P, Boonsawat W et al. Efficacy and Safety of Cytisine in Combination with a Community Pharmacists' Counselling for Smoking Cessation in Thailand: A Randomized Double-Blinded Placebo-Controlled Trial. <i>Int. J. Environ. Res. Public Health</i> 2022, 19, 13358. Smoking and tobacco: applying All Our Health: Guidance. UK Health Security Agency 2022. Available online here (accessed 20/9/2024). Fingertips, Department for Health and Social Care. Available online here (accessed 20/09/2024). NG209: Tobacco: preventing uptake, promoting quitting and treating dependence. National Institute for Health and Care Excellence 2023. Cytisine. Summary of Product Characteristics. Available online here (accessed 08/10/2024). Livingstone-Banks J, Fanshawe T, Thomas K et al. Nicotine receptor partial agonists for smoking cessation (Review). <i>Cochrane Database of Systematic Reviews</i> 2023 Lindson N, Theodoulou A, Ordóñez-Mena J et al. Pharmacological and electronic cigarette interventions for smoking cessation in adults: component network meta-analyses (Review). <i>Cochrane Database of Systematic Reviews</i> 2023 Ofori S, Lu C, Olasupo O et al. Cytisine for smoking cessation: A systematic review and meta-analysis. <i>Drug and Alcohol Dependence</i> 2023 251 110936 Oreskovic T, Percac-Lima S, Ashburner J et al. Cytisine Versus Varenicline for Smoking Cessation in a Primary Care Setting: A Randomized Non-inferiority Trial. <i>Nicotine and Tobacco Research</i>, 2023, 25, 1547–1555. Rigotti N, Benowitz N, Prochaska J et al. Cytisinicline for Smoking Cessation A Randomized Clinical Trial. <i>JAMA</i> 2023 330 (2) p152-160. Pastorino U, Ladisa V, Trussardo S et al. Cytisine Therapy Improved Smoking Cessation in the Randomized Screening and Multiple Intervention on Lung Epidemics Lung Cancer Screening Trial. <i>Journal of Thoracic Oncology</i> 2022 17 (11) p1276-1286. Tindle H, Freiberg M, Cheng D et al. Effectiveness of Varenicline and Cytisine for Alcohol Use Reduction Among People With HIV and Substance Use A Randomized Clinical Trial. <i>JAMA Network Open</i> 2022 5 (8) e2225129 Phusahat P, Dilokthornsakul P, Boonsawat W et al. Efficacy and Safety of Cytisine in Combination with a Community Pharmacists' Counselling for Smoking Cessation in Thailand: A Randomized Double-Blinded Placebo-Controlled Trial. <i>Int. J. Environ. Res. Public Health</i> 2022, 19(20), 13358. Tavakoli-Ardakania Sani Z, Beyraghi N et al. Comparison between cytisine and Nicotine Replacement Therapy in smoking cessation among inpatient psychiatric patients. <i>Addictive Diseases</i> 2023 doi.org/10.1080/10550887.2023.2237395 De Santo O, Orellana M, Di Niro C et al. Evaluation of the effectiveness of cytisine for the treatment of smoking cessation: A systematic review and meta-analysis. <i>Addiction</i> 2023 doi.org/10.1111/add.16399 Leaviss J, Sullivan S, Ren S et al. What is the clinical effectiveness and cost-effectiveness of cytisine compared with varenicline for smoking cessation? A systematic review and economic evaluation. <i>Health Technology Assessment</i>, No. 18.33 May 2014 Cystinicline (cytisine). All Wales Medicines Therapeutics and Toxicology Centre, July 2024

NOTES:

- SEL IMOC recommendations and minutes are available publicly via the [website](#).
- This SEL IMOC recommendation has been made on the cost effectiveness, patient outcome and safety data available at the time. The recommendation will be subject to review if new data becomes available, costs are higher than expected or new NICE guidelines or technology appraisals are issued.
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