South East London Integrated Medicines Optimisation Committee
Formulary recommendation

Reference	**147**
Intervention:	**Colchicine for the secondary prevention of ischaemic heart disease in adults** (Colchicine is a plant alkaloid with anti-inflammatory properties)
Date of Decision	**October 2023**
Date of Issue:	**November 2023 (time limited approval for 12 months)**
Recommendation:	**RED – suitable for prescribing and supply by hospital only**
Further Information	• Cardiovascular disease (CVD) describes a range of conditions that affect the heart and blood vessels caused by the process of atherosclerosis. Ischemic heart disease falls into this category. • Colchicine tablets are accepted for use in South East London for the **secondary prevention** of ischaemic heart disease (including after acute myocardial infarction and in chronic coronary disease) in high risk patients. • Colchicine may only be considered in this setting if the following criteria are met: – Use is for the secondary prevention of CVD disease **AND** – Established treatments recommended by NICE* have been optimised (for example: ACE inhibitors, beta blockers, statins) **AND** – Use is in high risk patients, defined as: ▪ Previous spontaneous acute myocardial infarction (diagnosed according to the universal MI criteria) with or without persistent ST-segment elevation **OR** ▪ Previous stroke or intervention for peripheral arterial disease (i.e., evidence of atherosclerotic disease affecting >1 vascular bed) **OR** ▪ Established diagnosis of diabetes mellitus **OR** ▪ Systemic Coronary Risk Estimation 2 (SCORE2) or Systemic Coronary Risk Estimation 2 – Older Persons (SCORE2-OP) algorithm 10-year risk of fatal and non-fatal myocardial infarction or stroke >10% • Treatment with colchicine will remain under the supervision of the CVD specialist. • In line with clinical trials describing the use of colchicine in this setting, colchicine is recommended at a dose of 500 micrograms once daily. • Colchicine is **not licensed*** for use in this indication (off-label use). Informed consent should be gained from the patient before treatment is initiated. • Treatment with colchicine in this setting would be continued long-term if tolerated. • When making a decision to initiate colchicine, consideration should also be given to the polypharmacy aspects and the risks associated with this for individual patients. • Patients should also be advised to stop colchicine and seek advice from their GP or CVD specialist in the following scenarios: - If gastrointestinal symptoms occur (e.g. nausea, vomiting, abdominal pain, diarrhoea) despite a low or lactose free diet **and / or** - There are symptoms suggestive of infection (e.g. fever, stomatitis, sore throat, prolonged bleeding, bruising or skin disorders) If after assessment by the GP it is deemed that the only cause is colchicine, then colchicine should be discontinued by the GP and the initiating CVD specialist informed of the discontinuation due to adverse effects. • Colchicine has a narrow therapeutic index and is extremely toxic in overdose. Refer to the summary of product characteristics for colchicine for further information. • This approval is **time limited to 12 months,** to enable experience of use. A report summarising outcomes with colchicine over this period will be presented back to the committee after 12 months. This report will be **coordinated across all Trusts in SEL by the original formulary applicant** and will include:

	- The total number of patients initiated on colchicine (including the proportion from SEL) for the secondary prevention of ischaemic heart disease - Whether the use of colchicine is in line with this formulary recommendation and the rationale for any deviation. - Reporting on patient related outcomes, including: (i) Adverse effects reported and their themes (ii) Number of patients discontinuing treatment due to adverse effects * NICE guidance includes: NICE guideline 185 (Acute Coronary Syndrome), NICE Guideline 181 (CVD)
Shared Care/ Transfer of care required:	N/A
Cost Impact for agreed patient group	• The application estimates that ~ 3,850 patients in SEL per annum will be eligible for treatment with colchicine in this setting. This is a broader patient cohort than agreed in the "Further Information" section. • The cost of colchicne is around £9.60 per anum per patient. • This would equate to £37,000 (or ~£1,850 per 100,000 population per year) for the broader patient cohort.
Usage Monitoring & Impact Assessment	**Acute Trusts:** • Monitor and audit usage and outcomes from use of colchicine in this setting as outlined in the "For information" section and report back the Committee in 12 months (data to be collated and presented no later than **December 2024**)
	SEL Borough Medicines Teams: • Monitor exception reports from GPs if inappropriate prescribing requests are made to primary care
Evidence reviewed	**References (from evidence review)** 1. NICE NG185: Acute coronary syndromes. (November 2020) 2. NICE CG181: Cardiovascular disease: risk assessment and reduction, including lipid modification (February 2023) 3. NICE CKS: Lipid modification – CVD prevention (January 2023) 4. Visseren, F.L. et al. (2021) "2021 ESC guidelines on Cardiovascular Disease Prevention in Clinical Practice," European Heart Journal, 42(34), pp. 3227–3337. 5. Colchicine - summary of product characteristics (SmPC) - (EMC). Available here[Accessed 14/02/2023] 6. Shah B, Allen N, Harchandani B, Pillinger M, Katz S, Sedlis SP, Echagarruga C, Samuels SK, Morina P, Singh P, et al. Effect of colchicine on platelet-platelet and platelet-leukocyte interactions: a pilot study in healthy subjects.Inflammation. 2016; 39:182–189. 7. Mastrocola R, Penna C, Tullio F, Femminò S, Nigro D, Chiazza F, Serpe L, Collotta D, Alloatti G, Cocco M, et al. Pharmacological inhibition of NLRP3 inflammasome attenuates myocardial ischemia/reperfusion injury by activation of RISK and mitochondrial pathways.Oxid Med Cell Longev. 2016; 2016:5271251. 8. Diaz-Arocutipa, C. et al. (2021) "Efficacy and safety of Colchicine in post–acute myocardial infarction patients: A systematic review and meta-analysis of randomized controlled trials," Frontiers in Cardiovascular Medicine, 8. 9. Hemkens, L.G. et al. (2016) "Colchicine for prevention of cardiovascular events," Cochrane Database of Systematic Reviews [Preprint]. 10. Tardif, J.-C. et al. (2019) "Efficacy and safety of low-dose colchicine after myocardial infarction," New England Journal of Medicine, 381(26), pp. 2497–2505. 11. Nidorf, S.M. et al. (2020) "Colchicine in patients with chronic coronary disease," New England Journal of Medicine, 383(19), pp. 1838–1847. 12. Opstal, T.S.J. et al. (2022) 'Long-term efficacy of colchicine in patients with chronic coronary disease: Insights from Iodoco2', Circulation, 145(8), pp. 626–628. 13. Samuel, M. et al. (2020) "Cost-effectiveness of low-dose colchicine after myocardial infarction in the Colchicine Cardiovascular Outcomes Trial (colcot)," European Heart Journal - Quality of Care and Clinical Outcomes, 7(5), pp. 486–495 14. European Society of Cardiology Guidelines for the management of acute coronary syndromes, August 2023. Available here, last accessed 18.10.23 (not in evidence review)

NOTES:

a) SEL IMOC recommendations and minutes are available publicly via the website.

b) 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.

c) **Not to be used for commercial or marketing purposes. Strictly for use within the NHS.**