South East London Integrated Medicines Optimisation Committee
(SEL IMOC, formerly the SEL Area Prescribing Committee)
Formulary recommendation

Reference	**128**
Intervention:	**Botulinum toxin type A injection for the localised treatment of focal neuropathic pain in adults** (Botulinum toxin is a protein complex derived from the bacterium *Clostridium botulinum*)
Date of Decision	**September 2021**
Date of Issue:	**October 2021**
Recommendation:	**RED – suitable for prescribing, supply and administration by hospital only**
Further Information	• Botulinum toxin type A injection is accepted for use in SEL as a **last line** treatment option for the localised treatment of **focal neuropathic pain** in adults that has failed to respond to conventional pharmacological, psychological and physical interventions. This includes use in patients with complex regional pain syndrome. • Patients will be under the specialist pain team and will have exhausted all other conventional treatment options for neuropathic pain, as outlined in the local guideline for managing neuropathic pain in primary care, the local specialist treatment guideline for refractory neuropathic pain and the NICE guideline on the management of neuropathic pain. The next step for these patients would otherwise be the neuromodulation pathway, which includes more invasive interventions, such as spinal implants. • A dose of 50 to 100 units will be delivered percutaneously via local injection. Doses may only be repeated at intervals of 3 to 6 months (maximum 4 doses per year) if the first dose significantly improves the pain, as determined following clinical assessment by the pain specialist. Successful response is measured as a pain score reduction of greater than 50% and functional improvement of psychological scores. • Other improvements that may be measured include long term improvement in pain, functional and psychological scores, reduction in doses of other medication being used to treat neuropathic pain or their discontinuation and a reduction in the need for specialist pain services. • Use of botulinum toxin type A injection in this setting will be by the specialist pain teams at GSTfT and KCH. Trust teams are required to ensure that there is robust governance in place at Trust level for the use of botulinum toxin type A in this setting, including use of the WHO safe surgery checklist and the Local Safety Standards for Invasive Procedures (LocSSIPs). • The governance processes will also include developing a clinical guideline for approval through the Trust's Drug and Therapeutics Committee. The guideline should set out the criteria for use, place in therapy, criteria for stopping and how outcomes will be monitored over time. The guideline will also be shared with the SEL IMOC for information. • Botulinum toxin type A injection is designated as a high-cost drug excluded from the national tariff. Treatment with botulinum toxin type A injection is only commissioned in line with the criteria in this formulary recommendation. • Only the most cost-effective brand of botulinum toxin type A injection will be commissioned for use, taking into consideration any negotiated prices. • **Note:** At the time of writing there are no brands of botulinum toxin type A injection licensed for the treatment of neuropathic pain and sub-cutaneous administration (which the applicant confirmed is to be the main route of administration in this setting) is not licensed. Patients should be made aware of this before treatment is started.
Shared Care/ Transfer of care required:	N/A

Cost Impact for agreed patient group	• Up to ~30 patients per year may be eligible for treatment with botulinum toxin type A in this setting. Approximately 50% of patients will be from SEL (n = 15). • Assuming treatment is with the most cost-effective brand (currently Xeomin®, 100 units), and is administered every 3 to 6 months, the cost of treatment for 15 patients in SEL every year would be between ~£3,000 and £6,500 per year (or ~£350 per 100,000 population). • This does not include activity related costs from the outpatient procedure appointments needed to administer the injections. However, the applicant noted that these patients are routinely followed up in clinic whilst on other treatments and therefore a minimal increase in activity is expected.
Usage Monitoring & Impact Assessment	**Acute Trusts:** • The service may be requested by the SEL IMOC to provide clinical audit data to demonstrate outcomes from botulinum toxin type A injection in this setting and compliance with the criteria in this recommendation.
	SEL CCG borough Medicines Optimisation teams: • Monitor monthly tariff excluded high cost drugs invoicing submitted by Trusts to the CSU to ensure billing of most cost effective product.
Evidence reviewed	**References (from evidence review)** 1) 2020. Introduction: Neuropathic pain in ADULTS: PHARMACOLOGICAL management in non-specialist settings: NICE Guidance Available here. [Accessed September 7, 2021]. 2) Backonja, M.-M., 2003. Defining neuropathic pain. Anesthesia & Analgesia, 97(3), pp.785–790. 3) 2019. SEL Pharmacological Management of Neuropathic Pain in Adults in primary care. Available here. [Accessed September 7, 2021]. 4) 2021. Xeomin 200 Units powder for solution for injection. Xeomin 200 units powder for solution for injection - Summary of Product Characteristics (SmPC) - (emc). Available here: [Accessed 07.09.21]. 5) Jeynes, L.C. & Gauci, C.A., 2008. Evidence for the use of botulinum toxin in the chronic pain setting—a review of the literature. Pain Practice, 8(4), pp.269–276. 6) Finnerup, N.B., Attal, N. & Haroutounian, S., 2015. Pharmacotherapy for neuropathic pain in adults: systematic review, meta-analysis & updated NeuPSIG recommendations. Lancet Neurol,14(2), pp.162-173 7) Egeo, G., Fofi, L. & Barbanti, P., 2020. Botulinum neurotoxin for the treatment of neuropathic pain. Frontiers in Neurology, 11, pp.1–15. 8) Attal, N. et al., 2016. Safety and efficacy of Repeated injections of botulinum TOXIN A in peripheral neuropathic pain (BOTNEP): A randomised, double-blind, placebo-controlled trial. The Lancet Neurology, 15(6), pp.555–565. 9) Bello RJ, Cooney CM, Melamed E, et al. The therapeutic efficacy of botulinum toxin in treating scleroderma-associated Raynaud's phenomenon: a randomized, double-blind, placebo-controlled clinical trial. Arthritis Rheumatol. 2017;69(8):1661e1669 10) Motegi SI, et al. Efficacy of botulinum toxin Bb injection for Raynaud's phenomenon and digital ulcers in patients with systemic sclerosis.Acta Derm Venereol. 2017;97(7): 843e850. 11) Neumeister MW, Chambers CB, Herron MS, et al. Botox therapy for ischemic digits. Plast Reconstr Surg. 2009;124(1):191e201. 12) Uppal L, Dhaliwal K, Butler P. A prospective study of the use of botulinum toxin injections in the treatment of Raynauds syndrome associated with scleroderma. J Hand Surgery 2014 39 p876-880. 13) Neumeister MW. Botulinum toxin type a in the treatment of Raynaud's phenomenon. J Hand Surg Am. 2010;35(12):2085e2092. 14) Motegi S, Yamada K, Toki S, et al. Beneficial effect of botulinum toxin A on Raynaud's phenomenon in Japanese patients with systemic sclerosis: a prospective, case series study. J Dermatol.2016;43(1):56e62. 15) Zhang X, Hu Y, Nie Z, et al. Treatment of Raynaud's phenomenon with botulinum toxin type A. Neurol Sci. 2015;36(7):1225e1231. 16) Lessard L, Bartow M, Lee J et al. Botulinum toxin A: A novel therapeutic modality for upper extremity chronic regional pain syndrome. Plast Reconstr Surg Glob Open 2018 Oct 16;6(10):e1847. 17) Larrakkar A, Borah G. Botulinum Toxin A Salvage of Ischemic Hand Trauma. Plast Reconstr Surg . 2020 Jan;145(1):161-164. 18) Ovens L, Dewar D. Use of botulinum toxin in complex regional pain syndrome of the hand. European Journal of Plastic Surgery 2013 36 p37-39. 19) MHRA, 2014. Botulinum toxin products: Rare but serious risks. Botulinum toxin products: rare but serious risks. Available here. [Accessed September 7, 2021].

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