South East London Area Prescribing Committee
Formulary recommendation

Reference	**070**
Intervention:	**Botulinum toxin type A injection for the treatment of oesophageal spasm** (Botulinum toxin is a protein complex derived from the bacterium C*lostridium botulinum*)
Date of Decision:	**June 2017**
Date of Issue:	**July 2017**
Recommendation:	**Red – suitable for prescribing and supply by the hospital only**
Further Information:	• Botulinum toxin is accepted for use in SEL for the treatment of oesophageal spasm, if the following criteria are fulfilled: (i) Confirmed diagnosis of oesophageal spasm via oesophageal manometry studies (ii) Approval from the local oesophageal MDT (iii) Restricted to use in patients where pharmacological treatment has been ineffective or not tolerated, including calcium channel blockers and nitrates • Surgical treatments are usually not effective for oesophageal spasm, and would only be indicated in select patients who had failed on botulinum toxin type A. • A total dose of 100 units will be used via endoscopic injection would usually suffice, however in patients where there is a larger area of spasm 200 units might be required. • Where treatment is effective, botulinum toxin type A injections may be repeated at a minimum of 4 monthly intervals as required. In practice, the dosing interval may be significantly longer than this and will depend on recurrence of symptoms • If treatment is not effective after the first dose, the treatment will not be repeated. • Botulinum toxin type A injection is a tariff excluded, CCG commissioned medicine for this indication and will be classified as a B* medicine locally • A **B* notification form will need to be completed** and submitted to commissioners for each patient treated with botulinum toxin for oesophageal spasm in order for the cost of the medicine to be reimbursed to the Trust. • Only the most cost-effective brand of botulinum toxin type A injection will be commissioned for use in this indication, taking into account any locally negotiated prices. • **Note:** at the time of writing, there are no brands of botulinum toxin type A injection licensed for the treatment of oesophageal spasm, and 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	• It is estimated that there will be approximately 25 patients across SE London per annum are suitable for treatment • Assuming treatment is with the most cost-effective brand (Xeomin®) the cost of treatment with 100 units every annum (average requirement for repeat injections), would be £96 per patient per annum (including VAT). As an upper limit, if all patients received three doses a year (worst case scenario), the drug cost impact would rise to £288 per patient per year. • This would result in a total drug cost impact across SEL of between £2,400 to £7,200 per annum.

Cost Impact for agreed patient group continued	• This does not include activity related costs from the appointments to administer the injections, however some of this spend would be offset by a reduction in the usage of pharmacological treatments for this condition, e.g. calcium channel blockers and nitrates.
Usage Monitoring & Impact Assessment	**Acute Trusts:** • Monitor usage and report back to the APC when required • Audit use as required by commissioners to ensure use is in line with this recommendation.
	CCGs: • Monitor monthly tariff excluded high cost drugs invoicing submitted by Trusts to the South East CSU to ensure billing of the most cost effective product
Evidence reviewed	**References (from evidence review)** 1. Malas A et al. Esophageal spasm. Medscape clinical reference. Available online here (accessed 30/05/2017) 2. Spechler S. Classification of oesophageal motility abnormalities. Gut 2001 **49** p145-151 3. Floch M et al. Esophageal motility disorders. Netters Gastroenterology 2nd edition Pa Saunders 2010 Chapter 14 4. Perioral endoscopic myotomy (POEM) for achalasia – guideline in development GIDIP1229. Available online here (accessed 30/05/2017). 5. Roman S, Kahrilas P. Distal oesophageal spasm. Dysphagia 2012 27 p115-123. 6. American College of Gastroenterologists guideline: Diagnosis and management of achalasia. The America Journal of Gastroenterology 2013 doi: 10.1038/ajg.2013.196 7. Diagnosis and management of esophageal achalasia. BMJ 2016 (online);354:i2785. 8. Pasricha P, ravich W, Hendrix T et al. Intersphincteric botulinum toxin for the treatment of achalasia. NEJM 1995 **332** (12) p774-778 9. Bassotti G, Annese V (1999) Review article: pharmacological options in achalasia. Aliment Pharmacol Ther 13:1391-1396 10. Martinek J, Siroky M, et al (2003) Treatment of patients with achalasia with botulinum toxin: a multicenter prospective cohort study. Dis Esophagus 16:204-209 11. Pasricha P J, Rai R et al. (1996) Botulinum toxin for achalasia: long-term outcome and predictors of response. Gastroenterology 110:1410-1415 12. Leyden J, Moss A, MacMathuna P et al. Endoscopic pneumatic dilatation versus botulinum toxin injection in the management of primary achalasia. Cochrane Database of Systematic Reviews 2014. 13. Annese V, Bassotti G, et al (2000) A multicentre randomised study of intrasphincteric botulinum toxin in patients with oesophageal achalasia. GISMAD Achalasia Study Group. Gut 46:597-600 14. Annese V, Bassotti G, et al (1999). Comparison of two different formulations of botulinum toxin A for the treatment of oesophageal achalasia. The Gismad Achalasia Study Group. Aliment Pharmacol Ther 13:1347-1350 15. Vanuytsel T, Bisschops R, Farre R et al. Botulinum toxin reduces dysphagia in patients with nonachalasia primary esophageal motility disorders. Clinical gastroenterology and hepatology 2013 11 p1115-1121 16. Miller L, Sujata V, Puella M et al. Treatment of chest pain in patients with noncardiac, nonreflux, nonachalasia spastic esophageal motor disorders using botulinum toxin injection into the gastroeosphageal junction. The American Journal of Gastroenterology 2002 97 (7) p1640-1646 17. Storr M, Alescher H, Roesch T et al. Treatment of symptomatic diffuse esophageal spasm by endoscopic injections of botulinum toxin: A prospective study with long-term follow-up. Gastrointestinal endoscopy 2001 54 (6) p754-759 18. van Hoeji F, Tack J, Pandolifino J et al. Complications of botulinum toxin injections for treatment of esophageal motility disorders. Diseases of the esophagus 2017 **30** p1-5

NOTES:

a) Area Prescribing Committee recommendations and minutes are available publicly on member CCG websites.

b) This Area Prescribing Committee 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.**