

## **BOTOX® (botulinum toxin type A) Abbreviated Prescribing Information**

**Presentation:** Botulinum toxin type A (from clostridium botulinum), 100 Allergan Units/vial. **Indications:** Symptomatic relief of blepharospasm, hemifacial spasm, idiopathic cervical dystonia (spasmodic torticollis) and severe axillary hyperhidrosis. Focal spasticity - dynamic equinus foot deformity due to spasticity in ambulant paediatric cerebral palsy patients (two years or older) and wrist and hand disability due to upper limb spasticity associated with stroke in adults. Safety and efficacy in the treatment of blepharospasm, hemifacial spasm, idiopathic cervical dystonia, or focal hyperhidrosis in children has not been demonstrated. **Dosage and Administration:** See Summary of Product Characteristics for full information. Reconstitute with sterile unpreserved normal saline (0.9% sodium chloride for injection). BOTOX® doses are not interchangeable with other preparations of botulinum toxin. *Blepharospasm:* Inject using a 27–30 gauge needle. Initially, 1.25–2.5 U injected into the medial and lateral orbicularis oculi of the upper lid and the lateral orbicularis oculi of the lower lid. Subsequently, the dose may be increased up to two-fold. Initial dose should not exceed 25 U per eye. Total dose should not exceed 100 U every 12 weeks. *Hemifacial spasm:* Treat as for unilateral blepharospasm (as above). Inject other affected facial muscles as needed. *Cervical dystonia:* Inject using a 25, 27 or 30 gauge needle (for superficial muscles) or 22 gauge (deeper musculature). Tailor dosing to individual patient based on the head and neck position, location of pain, muscle hypertrophy, body weight and response. Do not inject sternocleidomastoid muscle bilaterally. Maximum total dose usually not more than 200U. *Hyperhidrosis of the axillae:* Inject using a 30 gauge needle. Inject 50U intradermally to each axilla, evenly distributed in multiple sites 1-2 cm apart. *Paediatric cerebral palsy:* Inject using a 23–26 gauge needle into the medial and lateral heads of the affected gastrocnemius muscle. Recommended total dose: 4 U/kg. Divide dose between two limbs if injected on same occasion. Repeat dose not more frequently than every two months. *Focal spasticity associated with stroke:* Inject using a 25, 27 or 30 gauge needle (superficial muscles) or longer needle for deeper musculature. Multiple injection sites may facilitate more uniform contact with the innervation areas of the muscle, especially in larger muscles. Tailor dose and number of sites based on size, number and location of muscles involved, the severity of spasticity, and the presence of local muscle weakness. **Contra-indications:** Known hypersensitivity to any constituent. Pregnancy or lactation. Presence of infection at proposed injection site(s). **Warnings/Precautions:** Relevant anatomy and changes due to prior surgical procedures must be understood prior to administration. Adrenaline and other anti-anaphylactic measures should be available. Reports of side effects related to spread of toxin distant from injection site, sometimes resulting in death. Caution in patients with underlying neurological disorder and history of dysphagia and aspiration. Patients should seek medical help if swallowing, speech or respiratory disorders arise. Clinical fluctuations may occur during repeated use. Too frequent or excessive dosing can lead to antibody formation and treatment resistance. The previously sedentary patient should resume activities gradually. Caution in the presence of inflammation at injection site(s) or when excessive weakness/atrophy is present in target muscle. Caution when used for treatment of patients with peripheral motor neuropathic disease. Use with extreme caution and close supervision in patients with defective neuromuscular transmission (myasthenia gravis, Eaton Lambert Syndrome). Contains human serum albumin. Procedure related injury could occur. *Blepharospasm:* Reduced blinking following injection of the orbicularis muscle can lead to corneal pathology. Careful testing of corneal sensation in eyes previously operated upon, avoidance of injection into the lower lid areas to avoid ectropion, and vigorous treatment of any epithelial defect should be employed. Ecchymosis and facial swelling can occur. Caution when treating patients at risk for angle closure glaucoma. *Cervical Dystonia:* Possibility of dysphagia which may be mild but could be severe. Limiting dose into the sternocleidomastoid muscle to less than 100 U may decrease the risk of dysphagia. *Focal Spasticity associated with paediatric cerebral palsy and stroke:* Not intended as a replacement for the usual standard of care regimens. Not likely to be effective in improving range of motion at a joint affected by a fixed contracture. *Hyperhidrosis of the axillae:* Consider secondary causes of hyperhidrosis to avoid symptomatic treatment without the diagnosis and/or treatment of underlying disease.

**Interactions:** Theoretically, effect may be potentiated by aminoglycoside antibiotics or other drugs that interfere with neuromuscular transmission e.g. tubocurarine-type muscle relaxants. **Adverse Effects:** See Summary of Product Characteristics for full information on side effects. **General:** Usually occur within the first few days following injection and are transient, but rarely persist for several months or longer. Local muscle weakness represents the expected pharmacological action. Localised pain, tenderness and/or bruising may be associated with the injection. Fever and flu syndrome have been reported. **Frequency By Indication:** Defined as follows: Very Common (> 1/10); Common (>1/100, <1/10); Uncommon (>1/1,000, <1/100); Rare (>1/10,000, <1/1,000); Very Rare (<1/10,000). *Blepharospasm:* Nervous system disorders - Uncommon: Dizziness, facial paresis and facial palsy. Eye Disorders - Very common: Eyelid ptosis. Common: Punctate keratitis, lagophthalmos, dry eye, photophobia and lacrimation increase. Uncommon: Keratitis, ectropion, diplopia, entropion, visual disturbance and vision blurred. Rare: Eyelid oedema. Very rare: Corneal ulceration. Skin and subcutaneous tissue disorders – Uncommon: Rash/dermatitis. General disorders and administration site conditions - Common: Irritation and face oedema, Uncommon: Fatigue. *Cervical dystonia:* Infections and infestations. Common: Rhinitis and upper respiratory infection. Nervous system disorders. Common: Dizziness, hypertonia, hypoaesthesia, somnolence and headache. Eye Disorders. Uncommon: Diplopia and eyelid ptosis. Respiratory, thoracic and mediastinal disorders. Uncommon: Dyspnoea and dysphonia. Gastrointestinal

disorders. Very common: Dysphagia. Common: Dry mouth and nausea. Musculoskeletal and connective tissue disorders. Very common: Muscular weakness. Common: Musculoskeletal stiffness and soreness. General disorders and administration site conditions. Very common: Pain. Common: Asthenia, influenza like illness and malaise. Uncommon: Pyrexia. *Cerebral palsy*: Infections and infestations. Very common: Viral infection and ear infection. Nervous system disorders. Common: Somnolence and paraesthesia. Skin and subcutaneous tissue disorders. Common: Rash. Musculoskeletal and connective tissue disorders. Common: Myalgia and muscular weakness. Renal and urinary disorders Common: Urinary incontinence. General disorders and administration site conditions. Common: Gait disturbance and malaise. *Focal upper limb spasticity*: Psychiatric disorders. Uncommon: Depression and insomnia. Nervous system disorders. Common: Hypertonia. Uncommon: Hypoaesthesia, headache, paraesthesia, incoordination and amnesia. Ear and labyrinth disorders. Uncommon: Vertigo. Vascular disorders. Uncommon: Orthostatic hypotension. Gastrointestinal disorders. Uncommon: Nausea and paraesthesia oral. Skin and subcutaneous tissue disorders. Common: Ecchymosis and purpura. Uncommon: Dermatitis, pruritus and rash. Musculoskeletal and connective tissue disorders. Common: Pain in extremity and muscle weakness. Uncommon: Arthralgia and bursitis. General disorders and administration site conditions. Common: Injection site hemorrhage and injection site irritation. Uncommon: Asthenia, pain, injection site hypersensitivity, malaise and oedema peripheral. *Axillary hyperhidrosis*: Common: Non-axillary sweating, injection site reactions, pain, vasodilation (hot flushes). Uncommon: Weakness of the arms, pruritus, myalgia, joint disorder, arm pain. Nervous system disorders. Common: Headache. Vascular disorders. Common: Hot flushes. Gastrointestinal disorders. Uncommon: Nausea. Skin and subcutaneous tissue disorders. Common: Hyperhidrosis (non-axillary sweating). Uncommon: Pruritus. Musculoskeletal and connective tissue disorders. Uncommon: Muscular weakness, myalgia, arthropathy and pain in extremity. General disorders and administration site conditions Common: Injection site reactions and pain. Uncommon: Asthenia, injection site oedema and injection site pain. Increase in non-axillary sweating was reported in 4.5% of patients within 1 month after injection with no pattern with respect to sites affected. Resolution was seen in approximately 30% of the patients within four months. Weakness of the arm has been also reported uncommonly (0.7%). *Additional Information*: Side effects related to spread of toxin distant from site of administration reported very rarely (including exaggerated muscle weakness, dysphagia, aspiration/aspiration pneumonia, with fatal outcome in some cases). Other adverse events reported include dysarthria, abdominal pain, vision blurred, pyrexia, focal facial paralysis, hypoaesthesia, malaise, myalgia, pruritus, hyperhidrosis, diarrhoea, anorexia, hypoacusis, tinnitus, radiculopathy, syncope, myasthenia gravis, erythema multiforme, dermatitis psoriasiform, vomiting and brachial plexopathy. Also, rare reports of adverse events involving the cardiovascular system, including arrhythmia and myocardial infarction, some with fatal outcomes. Rare reports of serious and/or immediate hypersensitivity (including anaphylaxis, serum sickness, urticaria, soft tissue oedema and dyspnoea) associated with BOTOX<sup>®</sup> use alone or in conjunction with other agents known to cause similar reaction. Very rare reports of angle closure glaucoma following treatment for blepharospasm. New onset or recurrent seizure occurred rarely in predisposed patients, however relationship to botulinum toxin has not been established. Needle related pain and/or anxiety may result in vasovagal response.

**Basic NHS Price:** £128.93. **Marketing Authorisation Number:** 00426/0074. **Marketing Authorisation Holder:** Allergan Ltd, Marlow International, The Parkway, Marlow, Bucks, SL7 1YL, UK. **Legal Category:** POM. **Date of preparation:** July 2007.

Further information is available from: Allergan Limited, Marlow International, The Parkway, Marlow, Bucks SL7 1YL

Adverse events should be reported to Allergan Ltd [UK\\_MedInfo@allergan.com](mailto:UK_MedInfo@allergan.com) or 01628 494026  
Information about adverse event reporting can be found at [www.yellowcard.gov.uk](http://www.yellowcard.gov.uk)