
1221

Final Decision
Analytic Protocol
(DAP) to guide the
assessment of
Transurethral
injection of BOTOX®
(botulinum toxin) for
the treatment of
urinary incontinence
due to neurogenic
detrusor overactivity
(NDO)

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MSAC and PASC

The Medical Services Advisory Committee (MSAC) is an independent expert committee appointed by the Minister for Health and Ageing (the Minister) to strengthen the role of evidence in health financing decisions in Australia. MSAC advises the Minister on the evidence relating to the safety, effectiveness, and cost-effectiveness of new and existing medical technologies and procedures and under what circumstances public funding should be supported.

The Protocol Advisory Sub-Committee (PASC) is a standing sub-committee of MSAC. Its primary objective is the determination of protocols to guide clinical and economic assessments of medical interventions proposed for public funding.

Purpose of this document

This document is intended to provide a draft decision analytic protocol that will be used to guide the assessment of an intervention for a particular population of patients. The draft protocol will be finalised after inviting relevant stakeholders to provide input to the protocol. The final protocol will provide the basis for the assessment of the intervention.

The protocol guiding the assessment of the health intervention has been developed using the widely accepted "PICO" approach. The PICO approach involves a clear articulation of the following aspects of the research question that the assessment is intended to answer:

Patients – specification of the characteristics of the patients in whom the intervention is to be considered for use;

Intervention – specification of the proposed intervention

Comparator – specification of the therapy most likely to be replaced by the proposed intervention

Outcomes – specification of the health outcomes and the healthcare resources likely to be affected by the introduction of the proposed intervention

Purpose of application

A proposal for an application requesting MBS listing of transurethral injection of BOTOX® for the treatment of urinary incontinence due to neurogenic detrusor overactivity (NDO)¹ was received from Allergan Australia Pty Ltd by the Department of Health and Ageing in August 2011.

PASC has finalised this protocol to guide the assessment of the safety, effectiveness and cost-effectiveness of Transurethral injection of BOTOX® (botulinum toxin) for the treatment of urinary incontinence due to neurogenic detrusor overactivity (NDO) in order to inform MSAC's decision-making regarding public funding of the intervention.

Intervention

Description

There is no consensus on either the definition of urinary incontinence or the measurement of the severity of urinary incontinence. Consequently, the reported rates of urinary incontinence in Australia vary. AIHW, for example, estimated in 2006 that 545,000 of the Australian adult population experience severe incontinence, 723,100 Australians experience moderate urinary incontinence and 2,877,500 Australians experience slight urinary incontinence (AIHW, 2006). These population prevalence rates, however, do not differentiate by type of incontinence: stress incontinence (typically occurring during activities such as coughing, laughing, sneezing or exercise), urge incontinence (result of bladder spasms or contractions) or obstruction incontinence (typically due to benign prostatic hyperplasia, bladder stones, bladder or pelvic tumours, urethral stricture, etc). Urinary incontinence due to neurogenic overactive bladder (also called neurogenic detrusor overactivity [NDO]) is a distinct subset of the overactive bladder syndrome (urge incontinence) that arises either as a direct result of a primary neurologic disorder (such as multiple sclerosis or spinal cord injury) or secondary to a non-neurologic disease impacting the bladder's neural pathway. Signs and symptoms of NDO include increased urinary frequency, urgency, incontinence and nocturia (waking up at night to void). The goals of treatment are not only to improve patients' quality of life but also to maintain normal pressure within the bladder in order to minimise the risk of upper urinary tract complications and renal damage.

Botulinum toxin (BOTOX®) is produced by the gram-positive anaerobic bacterium *Clostridium*; it is among the most potent biologic neurotoxins. BOTOX®'s primary mechanism of action is inhibition of acetylcholine release at the presynaptic cholinergic junction. This results in a reduction of type Ia/II intrafusal muscle fibre afferent conduction, affecting the spinal stretch reflex and decreasing muscle tone and contractility without affecting muscle strength. BOTOX® is thought to have a direct effect on

¹ PASC noted that although this Decision Analytic Protocol (DAP) does not formally include incontinence due to idiopathic overactive bladder, the Applicant may adapt the present DAP for that purpose, by indicating whether (and if so, how) this new population and drug administration would differ from the considerations identified in the present DAP.

detrusor motor innervations, as well as on intrinsic bladder reflexes (Smaldone et al, 2010). BOTOX[®] also affects the transmission of afferent stimuli and reduces the appreciation of urge. Consequently, the Clinical Experts estimate that for 10-30% of patients self-catheterisation may be required in order to void after a BOTOX[®] injection. (Self-catheterisation is usually only required for the first few months after the injection).

The transurethral injection of BOTOX[®] for the treatment of urinary incontinence due to NDO is performed with local anaesthetic (with or without sedation) or under general anaesthesia. BOTOX[®] is injected into multiple sites in the inner muscular layer of the bladder wall (detrusor).

Administration, dose, frequency of administration, duration of treatment

The patient may be given local anaesthetic with or without sedation, or general anaesthesia, prior to the procedure. A rigid or flexible cystoscope is inserted through the urethra and into the bladder to allow visualisation of the bladder wall. Reconstituted BOTOX[®] (200 U in 30 mL) is injected into the inner muscular layer of the bladder wall (detrusor). The needle is inserted approximately 2 mm into the detrusor, and 30 injections of 1 mL (~6.7 U) each are spaced approximately 1 cm apart. Clinical improvement generally occurs within 2 weeks.

Because the effect of BOTOX[®] wears off over time, the proposed medical service is to be delivered approximately every 9 months (1.33 times per year), based on Phase III data. However, not all patients will require repeat injections; the Clinical Expert estimates that 10-20% of patients sufficiently improve with a single injection to not need further injections. It would therefore be expected that clinicians would evaluate the patient within 1 month after the initial BOTOX[®] treatment, and again, at 9-10 months (i.e., prior to the next injection), in order to assess the level of improvement from baseline and the need for further injections.

For those patients who do require repeat injections, the intervention can be used as long term treatment (8-10 year follow-up data are available in investigator-initiated studies). The product information indicates that the recommended dose is 200 U; however, 300 U has been tested in clinical trials.

Delivery could be restricted to certain specialties, including urologists and potentially also gynaecologists or subspecialties of gynaecology (e.g. urogynaecologists). The procedure is generally performed in patients who are day-admitted in hospital (occasionally overnight-admitted hospital patients where there are significant co-morbidities).

If the proposed intervention is to be provided in either inpatient or outpatient settings, consideration will need to be given to Extended Medicare Safety Net (EMSN) risk. Guidance can be provided by the Department of Health and Ageing's 'EMSN section'. Items currently being claimed for this intervention (predominantly item 36851, and infrequently item 37339) can only be billed on an in-hospital basis, preventing EMSN risk.

Co-administered interventions

Urodynamic studies are a standard part of patient assessment. According to Clinical Experts, a urodynamic study assesses the function of the lower urinary tract, and involves a measurement of: the urinary flow (including the measurement of the urine flow rate, voided volume, and voiding pattern), bladder and perineal ultrasound (assesses residual urinary volume and urethral mobility), cystometry (assesses bladder filling, storage and pressures) and stress testing (to diagnose urodynamic stress incontinence).

The additional health care resources required on the same day as the injection may include: hospital admission costs, urine test (MBS item number 11900 or other), anaesthesia cost, intravenous antibiotics, needle cost (rigid), and BOTOX® cost. (With the exception of the BOTOX® cost, these resources will be incurred on the day of sacral nerve stimulation, as well).

MBS 11900

URINE FLOW STUDY including peak urine flow measurement, not being a service associated with a service to which item 11919 applies

Fee: \$27.05

Patients being considered for the BOTOX® injections will have failed anticholinergic therapy or will be intolerant to anticholinergic therapy and/or smooth muscle relaxants. However, some patients may remain on these therapies during treatment with BOTOX®.

Anticholinergic drugs currently in use include: oxybutynin (PBS item number 8039D), propantheline (PBS item number 1953T), imipramine (PBS item number 2420J), tolterodine (not PBS-listed), darifenacin (not PBS-listed), solifenacin (not PBS-listed), extended-release patch version of oxybutynin (PBS item number 9454N) and extended release version of tolterodine (not PBS-listed). Oxybutynin is the most widely used anticholinergic, although propantheline is an older drug still commonly used in Australia (Kuteesa and Moore, 2006).

According to the Clinical Expert, the smooth muscle relaxant currently in use is oxybutynin (PBS item number 8039D).

Background

Current arrangements for public reimbursement

BOTOX® injection for detrusor overactivity incontinence is currently available to patients visiting an urologist or urogynaecologist through patient self-pay (for drug costs), and, less frequently, through private hospital funding or private health insurance. Allergan is seeking funding of BOTOX® for the treatment of urinary incontinence due to neurogenic detrusor overactivity through Section 100 of the PBS.

The injection of BOTOX® into the bladder is currently being claimed using MBS item numbers 36851 (predominantly) or 37339 (infrequently). (The Clinical Expert indicated that item 37339 is unlikely to be used for BOTOX® injections, as it is predominantly used for injections of collagen or macroplastique into the urethral wall.)

The number of claims processed per calendar year for item 36851 has increased from less than 100 in 2000 and 2001, to 575 in 2010, whereas that of item 37339 has fluctuated but remained fairly constant over time (537 claims were processed in 2000/2001 and 564 were processed in 2010/11). It is not possible to differentiate the proportion of claims under items 36851 or 37339 that can be attributed to botulinum toxin. Although data on items 36851 and 37339 may provide some guidance, it is important to note that the data would be masked by appropriate usage for the purpose originally approved for each item.

MBS 36851

CYSTOSCOPY, with injection into bladder wall

(Anaes.)

Fee: \$225.55

MBS 37339

PERIURETHRAL OR TRANSURETHRAL INJECTION of materials for the treatment of urinary incontinence, including cystoscopy and urethroscopy

(Anaes.)

Fee: \$235.40

Regulatory status

BOTOX® (a trademark of Allergan) is currently TGA-registered for a number of indications, including the treatment of urinary incontinence due to NDO resulting from a defined neurological illness (such as spinal cord injury or multiple sclerosis) and not controlled adequately by anticholinergic agents (TGA entries 172264 and 67311). The other approved indications (under the same entries) include:

- Prophylaxis of headaches in adults with chronic migraine (headache on at least 15 days per month of which at least 8 days are with migraine);
- Treatment of strabismus in children and adults;
- Treatment of blepharospasm associated with dystonia, including benign blepharospasm and VII nerve disorders (specifically hemifacial spasm) in patients twelve years and over;
- Treatment of cervical dystonia (spasmodic torticollis);
- Treatment of focal spasticity of the upper and lower limbs, including dynamic equinus foot deformity, due to juvenile cerebral palsy in patients two years of age and older;
- Treatment of severe primary hyperhidrosis of the axillae;

- Treatment of focal spasticity in adults;
- Treatment of spasmodic dysphonia.

BOTOX (Botulinum Toxin Type A) Purified Neurotoxin Complex is indicated for the following cosmetic indications:

- Temporary improvement in the appearance of upper facial rhytides (glabellar lines, crows' feet and forehead lines) in adults.

An alternative clostridium botulinum type A toxin, Dysport, is also TGA-registered for a more limited list of indications. Under TGA entries 74124 and 170651 Dysport is specified for the treatment of:

- spasticity of the upper limb in adults following a stroke;
- spasmodic torticollis in adults;
- dynamic equinus foot deformity due to spasticity in ambulant paediatric cerebral palsy patients, two years of age or older;
- blepharospasm in adults;
- hemifacial spasm in adults;
- moderate to severe glabellar lines in adults.

Patient population

Patients with urinary incontinence due to NDO, who have failed or are unsuitable for first-line conservative therapy.

Proposed MBS listing

Allergan does not have fee information and requests guidance from the Department on the appropriate way to collect these data. The Department's 'Fees, Policy and Analysis Section' will provide guidance to the applicant.

The injection of BOTOX® is currently reimbursed on the MBS for a range of TGA-approved indications, as listed in Appendix 1. The fees for these items range from \$43.35 to \$256.90. The fees for the two existing MBS items (item 36851 and item 37339) are within this range (\$221.15 and \$230.80).

Table 1: Proposed MBS item descriptor for transurethral injection of BOTOX® (botulinum toxin) for the treatment of urinary incontinence due to NDO.

<p>MBS [item number to be assigned by the Department if listed on the MBS] BOTULINUM TOXIN (Botox), transurethral injection of, for the treatment of urinary incontinence due to neurogenic detrusor overactivity, including cystoscopy and all injections in one day. Injections can only be performed on patients willing to self-catheterise if necessary. (Anaes.) (See para T11.1 of explanatory notes to this Category)² Fee: \$[Proposed fee]</p>

The proposed item may need to be phrased so as to include services performed both on an in-hospital and out-of-hospital basis. This item will be located within Group T11 of the MBS, which lists all of the Botox item numbers. The supply of BOTOX® for these items is made under section 100 of the *National Health Act 1953*.

The TGA approved indication for BOTOX® (TGA entries 17264 and 67311) is for treatment of urinary incontinence due to neurogenic detrusor overactivity resulting from a defined neurological illness (such as spinal cord injury or multiple sclerosis) and not controlled adequately by anticholinergic agents. The requested MBS listing is loosely consistent with the TGA approved indication for BOTOX®.

Clinical place for proposed intervention

A wide range of conservative therapies are currently available for patients with urinary incontinence due to neurogenic detrusor overactivity. These include: drug therapies, behavioural therapies and interventional therapies. Drug therapy may involve anticholinergics and/or smooth muscle relaxants, as described previously. Behavioural therapies can involve diet modifications, bladder training and/or rehabilitation of pelvic muscle. Interventional therapies can include external electrical stimulation (MSAC, 2008).

However, approximately 40% of patients either fail to improve or insufficiently improve with the conservative treatment options (Oerlemans and van Kerrebroeck, 2008). After the patients have exhausted conservative treatment options they may therefore become candidates for sacral nerve stimulation or best supportive care.

Sacral nerve stimulation involves the application of electrical stimulation to the sacral nerve via a fully implantable system. The procedure is carried out in two phases, allowing for a minimally invasive screening test before proceeding to permanent generator implant if the screening test indicates the viability of the treatment in the individual patient (MSAC, 2008).

² Please see Appendix 1 for Paragraph T11.1

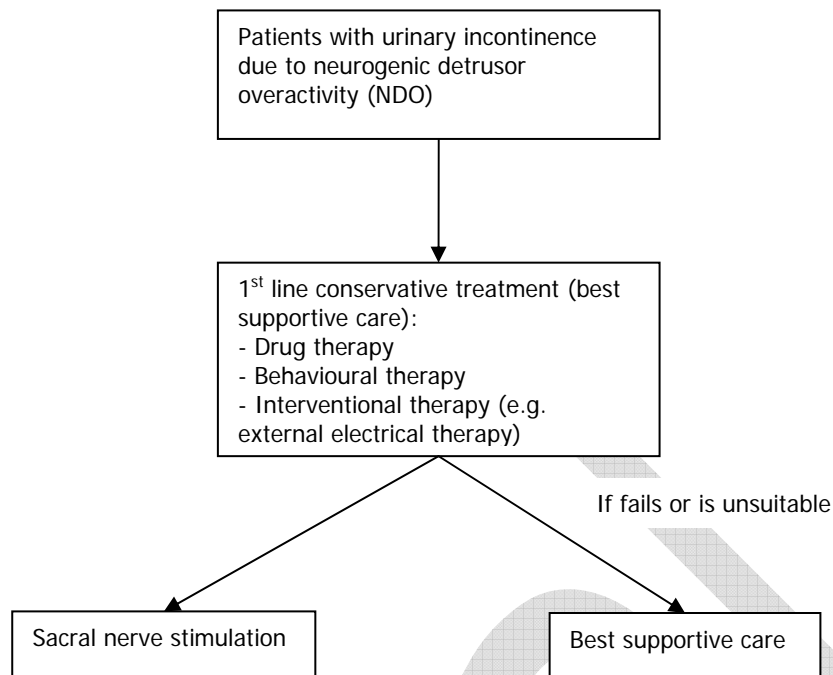
Best supportive care includes drug therapies, behavioural therapies and interventional therapies, as described above.

Current clinical management algorithm

This treatment pathway is based on the one developed in MSAC's review of Sacral Neural Stimulation for urinary indications (MSAC, 2008).³

Figure 1: Clinical management algorithm without the proposed intervention:

³ References to major surgery have been omitted, as (according to the Clinical Experts) it has now been replaced by SNS.



Clinical management algorithm with the proposed intervention

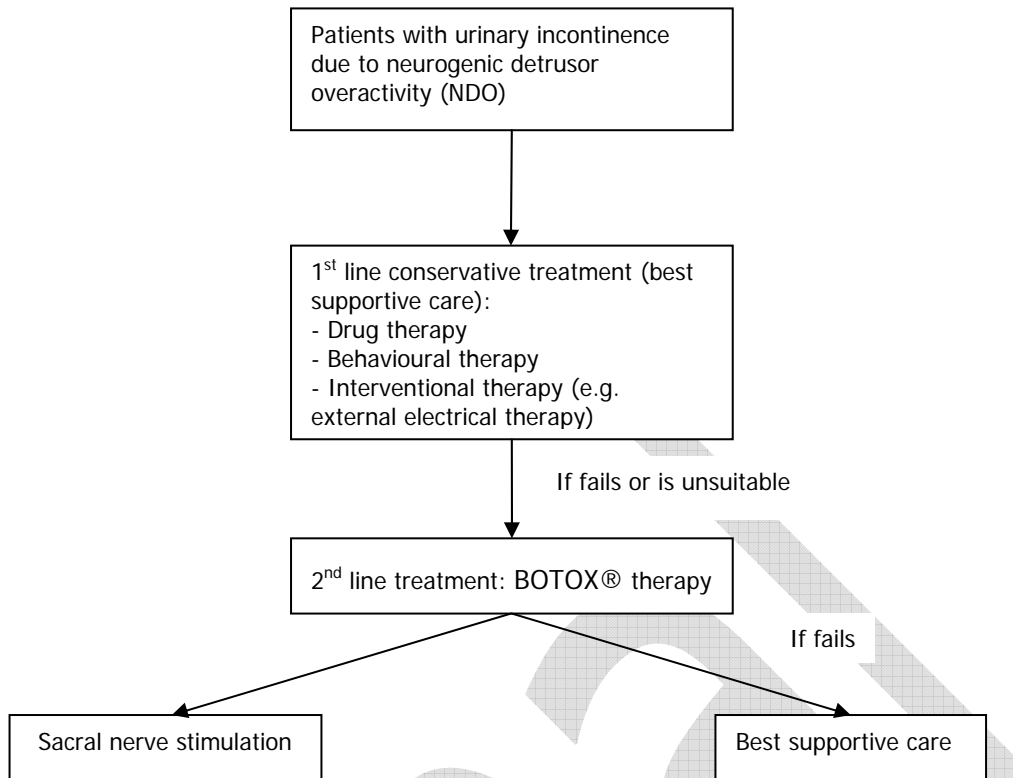
As noted above, the first line conservative therapies for patients with urinary incontinence due to neurogenic detrusor overactivity have high failure rates.

BOTOX[®] therapy is therefore proposed as a second-line approach. BOTOX[®] is more invasive than the first-line conservative approaches, but less invasive than SNS (which requires implantation of a system that delivers the electrical stimulation to the sacral nerve). Clinical expert indicated that after the injection of BOTOX[®], the use of anticholinergics is normally temporarily suspended, in order to assess the effectiveness of BOTOX[®]. Anticholinergics are usually reintroduced approximately 3-4 months after the BOTOX[®] injection.

BOTOX[®] is 'reversible' in the sense that the patient may elect not to undergo a reinjection at the end of the 9-month effectiveness period. (It needs to be noted here that the requirement for 9-month reinjection will have cost-effectiveness implications).

If the BOTOX[®] therapy fails, the previously described sacral nerve stimulation or (return to) best supportive care are possible treatment options.

Figure 2: Clinical management algorithm with the proposed intervention:



Comparator

Normally, the comparison here would reflect the relative safety, effectiveness and cost-effectiveness of the proposed intervention (BOTOX®) as compared to the current standard treatment. Allergan has requested that the majority of the evaluative work for this application be carried out by PBAC and that MSAC's evaluation be circumscribed to the comparison of the financial implications of funding the proposed intervention (BOTOX® injection into the bladder) under two MBS item numbers (MBS item 36851 and MBS item 37339) versus under a unique MBS item number (to be assigned). The clinical experts agreed that item 37339 is not relevant to the proposed service and that item 36851 is an appropriate comparator. The comparator for the MSAC evaluation is therefore MBS item 36851, cystoscopy, with injection into bladder wall.⁴

PASC determined that clarity will need to be provided on the extent to which the population and drug administration proposed for botulinum injections differs from the population and drug administration currently funded for any drug injected through MBS item 36851. Relevant considerations here might include: the setting of the procedure (e.g. endoscopy suite rather than in-hospital setting), the duration of the procedure (the number of injections for the botulinum toxin vs. the number of injections under item 36851), the complexity of the procedure (e.g. the skill level required to correctly place all 30 injections into the bladder wall) and the use of consumables.

⁴ Given that the proposed intervention (BOTOX®) is currently used off-licence, an important issue to consider here is whether the utilisation rates will change if a new MBS item number is assigned.

Clinical claim

Allergan has requested that the comparative safety and effectiveness of BOTOX® treatment for the treatment of urinary incontinence due to neurogenic detrusor overactivity be assessed by PBAC. Allergan has also requested that economic evaluation be carried out by PBAC.

PASC agrees that the safety, effectiveness and cost effectiveness of BOTOX® should be assessed by PBAC, whilst the safety, effectiveness and cost-effectiveness of the delivery method (i.e., the injection) should be assessed by MSAC. However, as this is a co-dependent technology, the effectiveness of the delivery method will be modified by the drug's effectiveness. Therefore, the data concerning BOTOX®'s safety and efficacy (which was presented to PBAC) will need to be considered by MSAC, as well.

The issues to be considered here will therefore include: safety of the injection, effectiveness of the injection (as modified by the evidence of the effectiveness of BOTOX® itself), and the consequences of adding the MBS item number (and any potential changes in utilisation rates issuing from this addition).

More specifically, the safety issues to be considered include: pain at the injection site, urinary tract infection (UTI), haematuria, asthenia due to the procedure, and bladder infections.

The effectiveness issues to be considered include: frequency of incontinence episodes, frequency of catheterisation, urodynamic parameters (maximum cystometric capacity, reflex detrusor volume, maximum detrusor pressure), quality of life scores, impact on the use of pharmaceuticals (dose changes), time to onset of effect and the extent of the effect.

Finally, as noted, the economic evaluation of the BOTOX® treatment would be carried out by PBAC and therefore, Table 2 was not completed for this application. However, MSAC's assessment should consider the consequences of adding the MBS item number for the injection of BOTOX® (and any potential changes in utilisation rates resulting from this addition).

Table 2: Classification of an intervention for determination of economic evaluation to be presented

		Comparative effectiveness versus comparator				
		Superior	Non-inferior	Inferior		
Comparative safety versus comparator	Superior	CEA/CUA	CEA/CUA	Net clinical benefit	CEA/CUA	
				Neutral benefit	CEA/CUA*	
				Net harms	None^	
	Non-inferior	CEA/CUA	CEA/CUA*	None^		
	Inferior	Net clinical benefit	CEA/CUA	None^	None^	
		Neutral benefit	CEA/CUA*			
Net harms		None^				

Abbreviations: CEA = cost-effectiveness analysis; CUA = cost-utility analysis

* May be reduced to cost-minimisation analysis. Cost-minimisation analysis should only be presented when the proposed service has been indisputably demonstrated to be no worse than its main comparator(s) in terms of both effectiveness and safety, so the difference between the service and the appropriate comparator can be reduced to a comparison of costs. In most cases, there will be some uncertainty around such a conclusion (i.e., the conclusion is often not indisputable). Therefore, when an assessment concludes that an intervention was no worse than a comparator, an

assessment of the uncertainty around this conclusion should be provided by presentation of cost-effectiveness and/or cost-utility analyses.

[^] No economic evaluation needs to be presented; MSAC is unlikely to recommend government subsidy of this intervention

Outcomes and health care resources affected by introduction of proposed intervention

Outcomes

This assessment will consider:

- Safety of the injection
 - Pain at the injection site
 - Urinary tract infection (UTI)
 - Haematuria
 - Asthenia due to the procedure
 - Bladder infection
- Effectiveness⁵
 - Frequency of incontinence episodes
 - Frequency of catheterisation
 - Urodynamic parameters (maximum cystometric capacity, reflex detrusor volume, maximum detrusor pressure)
 - Quality of life scores
 - Impact on the use of pharmaceuticals (dose changes)
 - Time to onset of effect
 - Extent of effect
- Consequences of adding the MBS item number (and any potential changes in utilisation rates resulting from this addition)

⁵ Different doses may be used here, depending on the reason for the injection. If the purpose of the injection is to keep the patient dry between catheterisation episodes, higher dose will be used; if the purpose of the injection is to help with incontinence management in patients dry between catheterisations, lower dose will be used.

Health care resources

Table 3: List of resources to be considered in the economic analysis

	Provider of resource	Setting in which resource is provided	Proportion of patients receiving resource	Number of units of resource per relevant time horizon per patient receiving resource	Disaggregated unit cost					
					MBS	Safety nets*	Other govt budget	Private health insurer	Patient	Total cost
<u>Resources provided to identify eligible population</u>										
- Resource 1										
- Resource 2, etc										
<u>Resources provided to deliver comparator 1</u>										
- Resource 1										
- Resource 2, etc										
<u>Resources provided in association with comparator 1 (e.g., pre-treatments, co-administered interventions, resources used to monitor or in follow-up, resources used in management of adverse events, resources used for treatment of down-stream conditions)</u>										
- Resource 1		In hospital			36851					
- Resource 2, etc										
<u>Resources provided to deliver comparator 2, etc</u>										
- Resource 1										
- Resource 2, etc										
<u>Resources provided in association with comparator 2, etc</u>										
- Resource 1										
- Resource 2, etc										
<u>Resources provided to deliver proposed intervention</u>										
- Resource 1		Botox injection			Not yet available					
- Resource 2, etc										
<u>Resources provided in association with proposed intervention</u>										
- Resource 1										
- Resource 2, etc										

Proposed structure of economic evaluation (decision-analytic)

Table 4: Summary of extended PICO to define research question that assessment will investigate

Patients	Intervention	Comparator	Outcomes to be assessed	Healthcare resources to be considered
Patients with urinary incontinence due to NDO who have failed or are unsuitable for first-line conservative therapy	Transurethral injection of BOTOX®, including cystoscopy and all injections in one day	Current MBS item used for this procedure (36851, cystoscopy, with injection into bladder wall)	<p>Safety of the injection</p> <ul style="list-style-type: none"> • Pain at the injection site • Urinary tract infection • Haematuria • Asthenia due to the procedure • Bladder infection <p>Effectiveness</p> <ul style="list-style-type: none"> • Freq. of incontinence episodes • Freq. of catheterisation • Urodynamic parameters (max. cystometric capacity, reflex detrusor volume, max. detrusor pressure) • Quality of life scores • Impact on the use of pharmaceuticals (dose changes) • Time to onset of effect • Extent of effect 	Consequences of adding the MBS item number (and any potential changes in utilisation rates resulting from this addition)

Appendix 1: Botox uses currently reimbursed by the MBS

MBS 18350

BOTULINUM TOXIN (Botox), injection of, for hemifacial spasm in a patient 12 years of age or older, including all injections on any one day

(See para T11.1 of explanatory notes to this Category)

Fee: \$122.50

MBS 18352

BOTULINUM TOXIN (Botox or Dysport), injection of, for cervical dystonia (spasmodic torticollis), including all injections on any one day

(See para T11.1 of explanatory notes to this Category)

Fee: \$245.10

MBS 18354

BOTULINUM TOXIN (Botox or Dysport), injection of, for dynamic equinus foot deformity due to spasticity in an ambulant cerebral palsy patient, aged two years or older, in accordance with the supply of the drug under instrument PB 122 of 2008 (Arrangements — Botulinum Toxin Program) made under Section 100 (1) (b) of the *National Health Act 1953*, including all such injections on any one day for all or any of the muscles subserving one functional activity and supplied by one motor nerve - applicable only to the first two treatments of each limb of the patient on any one day

(See para T11.1 of explanatory notes to this Category)

Fee: \$122.50

MBS 18356

BOTULINUM TOXIN (Botox or Dysport), injection of, for dynamic equinovarus foot deformity due to spasticity in an ambulant cerebral palsy patient, aged two years or older, in accordance with the supply of the drug under instrument PB 122 of 2008 (Arrangements — Botulinum Toxin Program) made under Section 100 (1) (b) of the *National Health Act 1953*, including all such injections on any one day for all or any of the muscles subserving one functional activity and supplied by one motor nerve - applicable only to the first two treatments of each limb of the patient on any one day

(Anaes.)

(See para T11.1 of explanatory notes to this Category)

Fee: \$122.50

MBS 18358

BOTULINUM TOXIN (Botox or Dysport), injection of, for dynamic equinovalgus foot deformity due to spasticity in an ambulant cerebral palsy patient, aged two years or older, in accordance with the supply of the drug under instrument PB 122 of 2008 (Arrangements — Botulinum Toxin Program) made under Section 100 (1) (b) of the *National Health Act 1953*, including all such injections on any one day for all or any of the muscles subserving one functional activity and supplied by one motor nerve - applicable only to the first two treatments of each limb of the patient on any one day

(Anaes.)

(See para T11.1 of explanatory notes to this Category)

Fee: \$122.50

MBS 18360

BOTULINUM TOXIN (Botox), injection of, for the treatment of focal spasticity in adults, including all injections for all or any of the muscles subserving one functional activity, supplied by one motor nerve, with a maximum of 4 treatments per patient on any one day (2 per limb)

(See para T11.1 of explanatory notes to this Category)

Fee: \$122.50

MBS 18361

Botulinum toxin (Botox), injection of, for the treatment of moderate to severe upper limb spasticity due to cerebral palsy, in a patient who is at least 2 years but less than 18 years, in association with either: (a) physiotherapy or occupational therapy or both; or (b) electrical stimulation or ultrasound for muscle localisation; including all injections for any or all of the muscles sub-serving one functional activity supplied by one motor nerve - with a maximum of four treatments per patient on any one day, and with a maximum of two treatments per limb

(Anaes.)

(See para T11.1 of explanatory notes to this Category)

Fee: \$122.50

MBS 18362

BOTULINUM TOXIN (Botox), injection of, for the treatment of severe primary hyperhidrosis of the axillae, including all such injections on any one day

(See para T11.1 of explanatory notes to this Category)

Fee: \$242.10

MBS 18366

BOTULINUM TOXIN (Botox), injection of, for the treatment of strabismus in children and adults, including all such injections on any one day and associated electromyography

(See para T11.1 of explanatory notes to this Category)

Fee: \$153.50

MBS 18368

BOTULINUM TOXIN (Botox), injection of, for the treatment of spasmodic dysphonia, including all such injections on any one day

(See para T11.1 of explanatory notes to this Category)

Fee: \$262.05

MBS 18370

BOTULINUM TOXIN (Botox), injection of, for the treatment of blepharospasm in a patient 12 years of age or older, including all such injections on any one day.

(See para T11.1 of explanatory notes to this Category)

Fee: \$44.20

MBS 18372

BOTULINUM TOXIN (Botox), injection of, for the treatment of bilateral blepharospasm in a patient 12 years of age or older, including all such injections on any one day

(See para T11.1 of explanatory notes to this Category)

Fee: \$122.50

T.11.1. BOTULINUM TOXIN - (ITEMS 18350 TO 18373)

The Therapeutic Goods Administration (TGA) assesses each indication for the therapeutic use of botulinum toxin on an individual basis. There are currently two botulinum toxin agents with TGA registration (Botox and Dysport). Each has undergone a separate evaluation of its safety and efficacy by the TGA as they are neither bioequivalent, nor dose equivalent. When claiming under an item for the injection of botulinum toxin, only the botulinum toxin agent specified in the item can be used. Benefits are not payable where an agent other than that specified in the item is used.

The TGA assesses each indication for the therapeutic use of botulinum toxin by assessment of clinical evidence for its use in paediatric or adult patients. Where an indication has been assessed for adult use, data has generally been assessed using patients over 12 years of age. Paediatric indications have been assessed using data from patients under 18 years of age. Botulinum toxin should only be administered to patients under the age of 18 where an item is for a paediatric indication, and patients over 12 years of age where the item is for an adult indication, unless otherwise specified.

Items for the administration of botulinum toxin can only be claimed by a medical practitioner who is registered by Medicare Australia to participate in the arrangements under Section 100 of the *National Health Act 1953* relating to the use and supply of Botulinum Toxin.

Items 18354, 18356 and 18358 for the treatment of equinus, equinovarus or equinovalgus are limited to a maximum of 4 injections per patient on any one day (2 per limb). Accounts should be annotated with the limb which has been treated.

Item 18292 may not be claimed for the injection of botulinum toxin, but may be claimed where a neurolytic agent (such as phenol) is used, in addition to botulinum toxin injection(s), to treat the obturator nerve in patients with a dynamic foot deformity.

Items 18354 to 18358 have been extended to patients 18 years of age and older who have commenced on the PBS subsidised treatment as a paediatric patient. This is in line with the extension of the PBS listing for the supply of the drug for this indication under Section 100(1)(b) of the *National Health Act 1953*.

Botulinum Toxin, which is not supplied and administered in accordance with the arrangements under Section 100 of the *National Health Act 1953*, is not free of charge to patients. Where a charge is made for the Botulinum Toxin administered, it must be separately listed on the account and not billed to Medicare.

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