

## Botox® (onabotulinumtoxinA) (Intramuscular/Intradetrusor/Intradermal)

Document Number: OHSU HEALTHSERVICES-0238

Last Review Date: 05/04/2023

Date of Origin: 06/21/2011

Dates Reviewed: 09/2011, 12/2011, 03/2012, 06/2012, 09/2012, 12/2012, 02/2013, 03/2013, 06/2013, 09/2013, 12/2013, 03/2014, 03/2015, 06/2015, 09/2015, 12/2015, 03/2016, 06/2016, 09/2016, 12/2016, 03/2017, 06/2017, 09/2017, 12/2017, 03/2018, 06/2018, 10/2018, 04/2019, 07/2019, 09/2019, 12/2019, 01/2020, 05/2020, 08/2020, 03/2021, 05/2021, 05/2022, 05/2023

### I. Length of Authorization <sup>65</sup>

- Coverage will be provided for 6 months and may be renewed.
- Preoperative use in Ventral Hernia may NOT be renewed.

### II. Dosing Limits

#### A. Quantity Limit (max daily dose) [NDC Unit]:

- Botox 100 unit powder for injection: 1 vial per 84 days
- Botox 100 unit powder for injection: 5 vials once (for Ventral Hernia only)
- Botox 200 unit powder for injection: 2 vials per 84 days

#### B. Max Units (per dose and over time) [HCPCS Unit]:

Indication	Billable Units	Per # days
Blepharospasm	200	84
Cervical Dystonia	300	84
Strabismus	100	84
Esophageal Achalasia	100	168
Adult Upper Limb Spasticity	400	84
Adult Lower Limb Spasticity	400	84
Chronic Migraine	200	84
Severe Primary Axillary Hyperhidrosis	100	112
Sialorrhea	100	84
Neurogenic Bladder/Detrusor Overactivity	200	84
Overactive Bladder	100	84
Chronic Anal Fissures	100	84
Palmar Hyperhidrosis	200	168
Pediatric Upper Limb Spasticity	200	84
Pediatric Lower Limb Spasticity	300	84
Laryngeal Dystonia	100	84

Hemifacial Spasms	100	84
Oromandibular Dystonia	200	84
Ventral Hernia	500	N/A
Temporomandibular Disorders	100	84
All other indications	400	84

### III. Initial Approval Criteria <sup>1</sup>

Coverage is provided in the following conditions:

- Patient is at least 18 years of age (unless otherwise specified); **AND**

#### Universal Criteria <sup>1</sup>

- Patient evaluated for any disorders which may contribute to respiratory or swallowing difficulty; **AND**
- Patient does not have a hypersensitivity to any botulinum toxin product; **AND**
- Patient does not have an active infection at the proposed injection site; **AND**
- Patient is not on concurrent treatment with another botulinum toxin (i.e., abobotulinumtoxinA, incobotulinumtoxinA, rimabotulinumtoxinB, etc.); **AND**

#### Blepharospasms † Φ <sup>1</sup>

- Patient is at least 12 years of age

#### Cervical Dystonia † Φ <sup>1,44</sup>

- Patient is at least 16 years of age; **AND**
- Patient has a history of recurrent involuntary contraction of one or more muscles in the neck and upper shoulders; **AND**
  - Patient has sustained head tilt; **OR**
  - Patient has abnormal posturing with limited range of motion in the neck

#### Strabismus † Φ <sup>1</sup>

- Patient is at least 12 years of age

#### Spastic Conditions <sup>1,22-25,32,33,44,46,49-51,69</sup>

- Patient has one of the following:
  - Upper/Lower Limb spasticity in adults (i.e., used post-stroke for spasms) †
  - Pediatric upper limb spasticity in patients at least 2 years of age (i.e., used post-stroke for spasms or for spasms related to cerebral palsy) † Φ
  - Pediatric lower limb spasticity in patients at least 2 years of age †

- Spasticity due to multiple sclerosis or Schilder’s disease ‡
- Acquired spasticity secondary to spinal cord or brain injuries ‡
- Spastic Plegic conditions including Monoplegia, Diplegia, Hemiplegia, Paraplegia (including Hereditary spastic paraplegia) and Quadriplegia ‡
- Hemifacial Spasm ‡

**Severe Primary Axillary Hyperhidrosis †** <sup>1,15,52,59,60,79</sup>

- Patient has tried and failed ≥ 1 month trial of a topical agent (i.e., 20% aluminum chloride, glycopyrronium, aluminum zirconium trichlorohydrate, etc.); **AND**
  - Patient has a history of medical complications such as skin infections or significant functional impairments; **OR**
  - Patient has had a significant burden of disease or impact to activities of daily living due to condition (e.g., impairment in work performance/productivity, frequent change of clothing, difficulty in relationships and/or social gatherings, etc.)

**Prophylaxis for Chronic Migraines †** <sup>1,6,7,53,56,58,75</sup>

- Patient is utilizing prophylactic intervention modalities (i.e., avoiding migraine triggers, pharmacotherapy, behavioral therapy, physical therapy, etc.); **AND**
- Patient has a diagnosis of chronic migraines defined as 15 or more headache (tension-type-like and/or migraine-like) days per month for > 3 months; **AND**
  - Patient has had at least five attacks with features consistent with migraine (with and/or without aura)§; **AND**
  - On at least 8 days per month for > 3 months:
    - Headaches have characteristics and symptoms consistent with migraine§; **OR**
    - Patient suspected migraines are relieved by a triptan or ergot derivative medication; **AND**
- Patient has failed at least an 8-week trial of any two oral medications for the prevention of migraines (see list of migraine-prophylactic medications below for examples ±) prior to initiation of onabotulinumtoxinA

**Esophageal Achalasia ‡** <sup>3-5,68,70</sup>

- Patient is at high risk of complication from pneumatic dilation, surgical myotomy, or peroral endoscopic myotomy (POEM); **OR**
- Patient has had treatment failure with pneumatic dilation, surgical myotomy, or POEM; **OR**
- Patient has had perforation from pneumatic dilation; **OR**
- Patient has an epiphrenic diverticulum or hiatal hernia; **OR**
- Patient has esophageal varices

**Focal Dystonias ‡** <sup>23-25,34-41,71-73</sup>

- Focal upper limb dystonia
  - Patient has functional impairment; **OR**
  - Patient has pain as a result
- Laryngeal dystonia
- Oromandibular dystonia
  - Patient has functional impairment; **OR**
  - Patient has pain as a result

**Sialorrhea associated with Neurological Disorders ‡** <sup>16-20,42,43</sup>

- Patient has a history of troublesome sialorrhea for at least a 3 month period; **AND**
  - Patient has Parkinson's disease; **OR**
  - Patient has severe developmental delays; **OR**
    - Patient has cerebral palsy; **OR**
  - Patient has amyotrophic lateral sclerosis (ALS)

**Incontinence due to Detrusor Overactivity †** <sup>1,55,64,67</sup>

- Patient is at least 5 years of age; **AND**
- Patient does not have a current, untreated urinary tract infection; **AND**
- Patient has detrusor overactivity associated with a neurologic condition (i.e., spinal cord injury, multiple sclerosis, etc.) that is confirmed by urodynamic testing; **AND**
- Patient has failed a 1 month or longer trial of **two** medications from either the antimuscarinic (i.e., darifenacin, fesoterodine, oxybutynin, solifenacin, tolterodine or trospium) or beta-adrenergic (i.e., mirabegron) classes

**Overactive Bladder (OAB) †** <sup>1,55</sup>

- Patient does not have a current, untreated urinary tract infection; **AND**
- Patient has symptoms of urge urinary incontinence, urgency, and frequency; **AND**
- Patient has failed a 1 month or longer trial of **two** medications from either the antimuscarinic (e.g., darifenacin, fesoterodine, oxybutynin, solifenacin, tolterodine or trospium, etc.) or beta-adrenergic (e.g., mirabegron, vibegron, etc.) classes

**Severe Palmar Hyperhidrosis ‡** <sup>21,52,74</sup>

- Patient has tried and failed  $\geq$  1 month trial of a topical agent (i.e., 20% aluminum chloride, etc.); **AND**
- Patient has failed with iontophoresis; **AND**

- Patient has a history of medical complications such as skin infections or significant functional impairments; **OR**
- Patient has had a significant impact to activities of daily living due to condition

**Chronic Anal Fissure ‡** <sup>27-31,47,61-63</sup>

- Other causes of disease have been ruled out (i.e., Crohn’s Disease, etc.); **AND**
- Patient has failed on non-pharmacologic supportive measures (i.e., sitz baths, psyllium fiber, bulking agents, etc.); **AND**
- Patient has tried and failed a ≥ 1 month trial of conventional pharmacologic therapy (i.e. oral/topical nifedipine, diltiazem, and/or topical nitroglycerin, bethanechol, etc.)

**Ventral Hernia ‡** <sup>65,66</sup>

- Patient has a large ventral hernia with loss of domain or contaminated ventral hernia; **AND**
- Used preoperatively in patients scheduled to receive abdominal wall reconstruction (AWR)

**Temporomandibular disorders (TMD) ‡** <sup>76-78</sup>

- Patient has a diagnosis of TMD with unilateral painful symptoms (i.e., pain upon opening the mouth and chewing, headache, joint clicking/noise, etc.) lasting > 3 months; **AND**
- Patient has tried and failed a 3 month trial of conventional noninvasive therapy (i.e., cognitive behavior therapy, pharmacotherapy, physical therapy, occlusal devices, etc.)

† FDA Approved Indication; ‡ Literature Supported Indication; Φ Orphan Drug

<b>± Migraine-Prophylaxis Oral Medications (list not all-inclusive)</b> <sup>6,53,58</sup>
<ul style="list-style-type: none"> <li>● Antidepressants (e.g., amitriptyline, fluoxetine, nortriptyline, etc.)</li> <li>● Beta blockers (e.g., propranolol, metoprolol, nadolol, timolol, atenolol, pindolol etc.)</li> <li>● Angiotensin converting enzyme inhibitors/angiotensin II receptor blockers (ex. lisinopril, candesartan, etc.)</li> <li>● Anti-epileptics (e.g., divalproex, valproate, topiramate, etc.)</li> <li>● Calcium channels blockers (e.g., verapamil, etc.)</li> </ul>
<b>§ Migraine Features</b> <sup>53,58,75</sup>
<p><b><u>Migraine without aura</u></b></p> <ul style="list-style-type: none"> <li>● At least five attacks have the following:             <ul style="list-style-type: none"> <li>○ Headache attacks lasting 4-72 hours (untreated or unsuccessfully treated)</li> <li>○ Headache has at least two of the following characteristics:                 <ul style="list-style-type: none"> <li>– Unilateral location</li> <li>– Pulsating quality</li> <li>– Moderate or severe pain intensity</li> <li>– Aggravation by or causing avoidance of routine physical activity (e.g., walking or climbing stairs); <b>AND</b></li> </ul> </li> <li>○ During headache at least one of the following:                 <ul style="list-style-type: none"> <li>– Nausea and/or vomiting</li> <li>– Photophobia and phonophobia</li> </ul> </li> </ul> </li> </ul>
<p><b><u>Migraine with aura</u></b></p> <ul style="list-style-type: none"> <li>● At least two attacks have the following:             <ul style="list-style-type: none"> <li>○ One or more of the following fully reversible aura symptoms:                 <ul style="list-style-type: none"> <li>– Visual</li> </ul> </li> </ul> </li> </ul>

- Sensory
- Speech and/or language
- Motor
- Brainstem
- Retinal; **AND**
- o At least three of the following characteristics:
  - At least one aura symptom spreads gradually over  $\geq 5$  minutes
  - Two or more symptoms occur in succession
  - Each individual aura symptom lasts 5 to 60 minutes
  - At least one aura symptom is unilateral
  - At least one aura symptom is positive (e.g., scintillations and pins and needles)
  - The aura is accompanied, or followed within 60 minutes, by headache

#### IV. Renewal Criteria <sup>1</sup>

Coverage can be renewed based upon the following criteria:

- Patient continues to meet universal and indication specific criteria as identified in section III; **AND**
- Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include: symptoms of a toxin spread effect and clinically significant effects with pre-existing neuromuscular disorders (i.e., asthenia, generalized muscle weakness, diplopia, ptosis, dysphagia, dysphonia, dysarthria, urinary incontinence, swallowing/breathing difficulties, etc.), severe hypersensitivity reactions (i.e., anaphylaxis, serum sickness, urticaria, soft tissue edema, and dyspnea, etc.), severe pulmonary effects (i.e., reduced pulmonary function), corneal exposure/ulceration, retrobulbar hemorrhage, bronchitis/upper-respiratory tract infections, autonomic dysreflexia, urinary tract infection, and urinary retention, etc.; **AND**
- Disease response as evidenced by the following:

##### **Blepharospasms** <sup>1</sup>

- Improvement of severity and/or frequency of eyelid spasms

##### **Cervical Dystonia** <sup>1</sup>

- Improvement in the severity and frequency of pain; **AND**
- Improvement of abnormal head positioning

##### **Strabismus** <sup>1</sup>

- Improvement in alignment of prism diopters compared to pre-treatment baseline

##### **Focal Upper/Lower Limb Spasticity** <sup>1</sup>

- Decrease in tone and/or resistance, of affected areas, based on a validated measuring tool (i.e., Ashworth Scale, Physician Global Assessment, Clinical Global Impression (CGI), etc.)

##### **Hemifacial Spasms** <sup>32,33,49-51</sup>

- Decrease in frequency and/or severity of spasm, or a decrease in tone and/or improvement in asymmetry to the affected side of the face

**Severe Primary Axillary Hyperhidrosis** <sup>1,59</sup>

- Significant reduction in spontaneous axillary sweat production; **AND**
- Patient has a significant improvement in activities of daily living

**Prophylaxis for Chronic Migraines** <sup>1,53,56,58</sup>

- Significant decrease in the number, frequency, and/or intensity of headaches; **AND**
- Improvement in function; **AND**
- Patient continues to utilize prophylactic intervention modalities (i.e., pharmacotherapy, behavioral therapy, physical therapy, etc.)

**Esophageal Achalasia** <sup>3-5,68,70</sup>

- Improvement and/or relief in symptoms (i.e., dysphagia, pain, etc. ); **OR**
- Improvement in esophageal emptying as evidenced by functional testing

**Focal Dystonias** <sup>23-25,34-41,71</sup>

- **Focal upper limb dystonia**
  - Improvement in pain and/or function
- **Laryngeal dystonia**
  - Improvement in voice function or quality
- **Oromandibular dystonia**
  - Improvement in pain and function

**Sialorrhea associated with Neurological Disorders** <sup>16-19,42,43</sup>

- Significant decrease in saliva production

**Incontinence due to Detrusor Overactivity** <sup>1</sup>

- Patient does not have a current, untreated urinary tract infection; **AND**
- Significant improvements in weekly frequency of incontinence episodes; **AND**
- Patient’s post-void residual (PVR) periodically assessed as medically appropriate

**Overactive Bladder (OAB)** <sup>1</sup>

- Patient does not have a current, untreated urinary tract infection; **AND**
- Significant improvement in daily frequency of urinary incontinence or micturition episodes and/or volume voided per micturition; **AND**

- Patient’s post-void residual (PVR) periodically assessed as medically appropriate

**Severe Palmar Hyperhidrosis** <sup>52,74</sup>

- Significant reduction in spontaneous palmar sweat production; **AND**
- Patient has a significant improvement in activities of daily living

**Chronic Anal Fissure** <sup>27-31,47,61-63</sup>

- Complete healing of anal fissure; **OR**
- Symptomatic improvement of persistent fissures

**Spastic Conditions, Other (Plegias, etc.)** <sup>22-25,32,33,44,46,49-51,69</sup>

- Decrease in tone and/or resistance, of affected areas, based on a validated measuring tool (i.e., Ashworth Scale, Physician Global Assessment, Clinical Global Impression (CGI), etc.)

**Ventral Hernia** <sup>65,66</sup>

- May not be renewed

**Temporomandibular Disorders (TMD)** <sup>76-78</sup>

- Patient has significant improvement in symptoms (i.e., pain upon opening the mouth and chewing, headache, joint clicking/noise, etc.)

**V. Dosage/Administration** <sup>1,17,21,25,27-30,32,36-38,50,52,65,70,72-74,78</sup>

Indication	Dose
Blepharospasm	1.25 to 2.5 Units (0.05 to 0.1 ml per site) injected into each of 3 sites per affected eye every three months. There appears to be little benefit obtainable from injecting more than 5 Units per site. The effect of treatment lasts an average of 12 weeks. Cumulative dose in 30 days should not exceed 200 units.
Cervical Dystonia	198 to 300 Units divided among the affected muscles. No more than 50 Units per site. May re-treat in 12 weeks.
Strabismus	Based on muscle(s) affected, 1.25 to 5 Units in any one muscle initially. Subsequent doses may be increased up to two-fold compared to previously administered dose. No more than 25 Units in any one muscle for recurrent cases. The effect of treatment usually lasts about 12 weeks.
Esophageal Achalasia	100 Units (20 to 25 Units per quadrant) per administration, dose may be repeated in 6 months (24 weeks).
Upper Limb Spasticity	Dosing in initial and sequential treatment sessions should be tailored to the individual based on the size, number and location of muscles involved, severity of spasticity, the presence of local muscle weakness, the patient’s response to previous treatment, or adverse event history with Botox. For pediatrics, localization of the involved muscles with



Indication	Dose
	<p>techniques such as needle electromyographic guidance, nerve stimulation, or ultrasound is recommended.</p> <p><u>Adults</u></p> <ul style="list-style-type: none"> <li>– In clinical trials, doses ranging from 75 to 400 Units were divided among selected muscles at a given treatment session. Re-treat no sooner than every 12 weeks.</li> </ul> <p><u>Pediatrics</u></p> <ul style="list-style-type: none"> <li>– The recommended dose for treating pediatric upper limb spasticity is 3 Units/kg to 6 Units/kg divided among the affected muscles. The total dose of Botox administered per treatment session in the upper limb should not exceed 6 Units/kg or 200 Units, whichever is lower. The maximum cumulative dose should not exceed the lower of 10 Units/kg body weight or 340 Units, in a 3-month interval.</li> </ul>
Lower Limb Spasticity	<p><u>Adults</u></p> <ul style="list-style-type: none"> <li>– 300 to 400 Units divided among 5 muscle groups (gastrocnemius, soleus, tibialis posterior, flexor hallucis longus, and flexor digitorum longus). Re-treat no sooner than every 12 weeks.</li> </ul> <p><u>Pediatrics</u></p> <ul style="list-style-type: none"> <li>– The recommended dose for treating pediatric lower limb spasticity is 4 Units/kg to 8 Units/kg divided among the affected muscles. The total dose of Botox administered per treatment session in the lower limb should not exceed 8 Units/kg or 300 Units, whichever is lower. The maximum cumulative dose should not exceed the lower of 10 Units/kg body weight or 340 Units, in a 3-month interval.</li> </ul>
Chronic Migraine	<p>155 Units administered intramuscularly (IM) as 0.1 mL (5 Units) injections per each site. Injections should be divided across 7 specific head/neck muscle areas. The recommended re-treatment schedule is every 12 weeks.</p>
Severe Primary Axillary Hyperhidrosis	<p>50 Units intradermally per axilla every 16 weeks</p>
Sialorrhea	<p>15 to 40 Units in the parotid gland injected in two places and 10 to 15 Units in the submandibular glands (total dose from 50 to 100 Units per patient/administration), repeated in 3 months (12 weeks), if needed.</p>
Neurogenic Bladder/Detrusor Overactivity	<p><u>Adults</u></p> <ul style="list-style-type: none"> <li>– 200 Units per treatment injected into the detrusor muscle using 30 injections (~6.7 Units each).</li> </ul> <p><u>Pediatrics</u></p> <ul style="list-style-type: none"> <li>– Weight ≥ 34 kg: 200 Units per treatment injected into the detrusor muscle using 20 injections.</li> <li>– Weight &lt; 34 kg: 6 Units/kg per treatment injected into the detrusor muscle using 20 injections.</li> </ul> <p>** Re-inject no sooner than 12 weeks from the prior bladder injection.</p>
Overactive Bladder (OAB)	<p>100 Units per treatment injected into the detrusor muscle using 20 injections (5 units each). Re-inject no sooner than 12 weeks from the prior bladder injection.</p>
Palmar Hyperhidrosis	<p>50 to 100 Units per hand, repeated every 6 months (24 weeks), as needed.</p>
Hemifacial Spasms	<p>Recommended dose of 12 to 40 Units, divided among affected muscles. May re-treat every 12 weeks.</p>

Indication	Dose
Oromandibular Dystonia	80 Units per side (~40 Units injected into both the masseter and submental complex muscles) every 12 weeks.
Laryngeal Dystonia	Starting dose of 1.25 to 5 Units into affected muscles. Dose may be titrated up to 25 Units based on response and side effects. Re-treat every 3 months (12 weeks).
Chronic Anal Fissures	Recommended doses of up to 25 Units, injected into the anal sphincter. Re-treat every 3 months (12 weeks).
Ventral Hernia	500 Units divided among abdominal muscles, injected 2-4 weeks prior to AWR surgery. <i>May not be renewed.</i>
Temporomandibular disorders (TMD)	10-40 Units per injection site (masseter muscle, lateral pterygoid muscle, lateral pterygoid muscle, anterior temporalis muscle) for a total of 100 Units every 12 weeks
All other indications (unless otherwise specified)	Not to exceed a cumulative dose of 400 Units (for one or more indications) every 12 weeks.
<ul style="list-style-type: none"> <li>– When initiating treatment, the lowest recommended dose should be used.</li> <li>– In treating adult patients for one or more indications, the maximum cumulative dose should not exceed 400 Units, in a 3-month (12-week) interval (unless used for Ventral Hernia).</li> <li>– In treating pediatric patients, the total should not exceed the lower of 10 Units/kg body weight or 340 Units, in a 3-month (12-week) interval.</li> <li>– Unless otherwise stated, re-treatment should occur no sooner than 12 weeks from the prior injection.</li> <li>– Units of Botox are specific to the preparation and assay method utilized and are not interchangeable with other preparations of botulinum toxin products and cannot be compared to or converted into units of any other botulinum toxin products</li> </ul>	

## VI. Billing Code/Availability Information

### HCPCS Code:

- J0585 – Injection, onabotulinumtoxinA, 1 unit; 1 billable unit = 1 unit

### NDC:

- Botox 100 unit powder for injection; single-dose vial: 00023-1145-xx
- Botox 200 unit powder for injection; single-dose vial: 00023-3921-xx

## VII. References

1. Botox [package insert]. Irvine, CA; Allergan, Inc; August 2022. Accessed April 2023.
2. Vaezi MF, Pandolfino JE, Vela MF. ACG Clinical Guideline: Diagnosis and Management of Achalasia. Am J Gastroenterol 2013; 108:1238-49.
3. Michaela Muller, Alexander J Eckardt, and Till Wehrmann. Endoscopic approach to achalasia. World J Gastrointest Endosc. 2013; 5: 379–390.
4. Kolbasnik J, Waterfall WE, Fachnie B, Chen Y, Tougas G. Long-term efficacy of botulinum toxin in classical achalasia. Am J Gastroenterol 1999;94:3434-3439

5. Leyden JE, Moss AC, MacMathuna P. Endoscopic pneumatic dilation versus botulinum toxin injection in the management of primary achalasia. *Cochrane Database Syst Rev*. 2014; 12:CD005046. PMID 25485740
6. Modi S, Lowder DM. Medications for migraine prophylaxis. *Am Fam Physician*. 2006 Jan 1; 73(1):72-8.
7. Pringheim T, Davenport W, Mackie G, et al. Canadian Headache Society guideline for migraine prophylaxis. *Can J Neurol Sci*. 2012 Mar; 39(2 Suppl 2):S1-S9.
8. Delgado MR, Hirtz D, Aisen M, et al. Practice Parameter: Pharmacologic treatment of spasticity in children and adolescents with cerebral palsy (an evidence-based review): Report of the Quality Standards Subcommittee of the American Academy of Neurology and the Practice Committee of the Child Neurology Society. *Neurology*. 2010;74(4):336-43
9. Quality Standards Subcommittee of the American Academy of Neurology, Practice Committee of the Child Neurology Society, Delgado MR, Hirtz D, Aisen M, Ashwal S, Fehlings DL, McLaughlin J, Morrison LA, Shrader MW, Tilton A, Vargus-Adams J. Practice parameter: pharmacologic treatment of spasticity in children and adolescents with cerebral palsy (an evidence-based review). Report of the Quality Standards Subcommittee of the AAN and Practice Committee of the Child Neurology Society. *Neurology* 2010 Jan 26; 74(4):336-43.
10. [Simpson DM](#), [Gracies JM](#), [Graham HK](#), et al. Assessment: Botulinum neurotoxin for the treatment of spasticity (an evidence-based review): report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. [Neurology](#). 2008 May 6; 70(19):1691-1698.
11. Koman LA, Mooney JF, Smith BP, et al: Botulinum toxin type A neuromuscular blockade in the treatment of lower extremity spasticity in cerebral palsy: a randomized, double-blind, placebo-controlled trial. BOTOX Study Group. *J Pediatr Orthop* 2000; 20(1):108-115
12. Koman LA, Brashear A, Rosenfeld, et al. Botulinum toxin type A neuromuscular blockade in the treatment of equinus foot deformity in cerebral palsy: A multicenter, Open-label Clinical trial. *Pediatrics* 2001; 108:1062-1071.
13. Fehlings D, Rang M, Glazier J, et al: An evaluation of botulinum-A toxin injections to improve upper extremity function in children with hemiplegic cerebral palsy. *J Pediatr* 2000; 137(3):331-337
14. Bjornson K, Hays R, Graubert C, et al. Botulinum toxin for spasticity in children with cerebral palsy: a comprehensive evaluation. *Pediatrics*. 2007 Jul;120(1):49-58
15. Naumann M, So Y, Argoff CE, et al. Assessment: Botulinum neurotoxin in the treatment of autonomic disorders and pain (an evidence-based review): report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. *Neurology* 2008 May 6;70(19):1707-14
16. Lagalla G, Millevolte M, Capecci M, et al. Botulinum toxin type A for drooling in Parkinson's disease: a double-blind, randomized, placebo-controlled study. *Mov Disord* 2006;21:704-707
17. Porta M, Gamba M, Bertacchi G, et al. Treatment of sialorrhea with ultrasound guided botulinum toxin type A injection in patients with neurological disorders. *J Neurol Neurosurg Psychiatry* 2001;70:538-540

18. Lipp A, Trottenberg T, Schink T, et al. A randomized trial of botulinum toxin A for treatment of drooling *Neurology*. 2003;61:1279-1281
19. Dogu O, Apaydin D, Sevim S, et al. Ultrasound-guided versus 'blind' intraparotid injections of botulinum toxin-A for the treatment of sialorrhoea in patients with Parkinson's disease. *Clin Neurol Neurosurg* 2004;106:93-96
20. Jackson CE, Gronseth G, Rosenfeld J, et al. Randomized double-blind study of botulinum toxin type B for sialorrhea in ALS patients. *Muscle Nerve*. 2009;39(2):137
21. Weinberg T, Solish N, Murray C. Botulinum neurotoxin treatment of palmar and plantar hyperhidrosis. *Dermatol Clin*. 2014 Oct; 32(4):505-15. Epub 2014 Jul 24
22. Albanese A, Barnes MP, Bhatia KP, et al. A systematic review on the diagnosis and treatment of primary (idiopathic) dystonia and dystonia plus syndromes: report of an EFNS/MDS-ES Task Force. *Eur J Neurol*. 2006;13(5):433-444
23. Kruisdijk JJ, Koelman JH, Ongerboer de Visser BW, de Haan RJ, Speelman JD. Botulinum toxin for writer's cramp: a randomised, placebo-controlled trial and 1-year follow-up. *J Neurol Neurosurg Psychiatry*. 2007;78(3):264-270
24. Cole R, Hallett M, Cohen LG. Double-blind trial of botulinum toxin for treatment of focal hand dystonia. *Mov Disord*. 1995 Jul;10(4):466-71. doi: 10.1002/mds.870100411.
25. Cohen LG, Hallett M, Geller BD, Hochberg F. Treatment of focal dystonias of the hand with botulinum toxin injections. *J Neurol Neurosurg Psychiatry*. 1989;52(3):355-363
26. Simpson DM, Blitzer A, Brashear A, et al. Assessment: Botulinum neurotoxin for the treatment of movement disorders (an evidence-based review); Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. *Neurology* May 6, 2008 vol. 70 no. 19 1699-1706
27. Maria G, Cassetta E, Gui D, et al. A comparison of botulinum toxin and saline for the treatment of chronic anal fissure. *N Engl J Med*. 1998;338(4):217-220
28. Menten BB, Irkorucu O, Akin M, et al: Comparison of botulinum toxin injection and lateral internal sphincterotomy for the treatment of chronic anal fissure. *Dis Colon Rectum* 2003; 46:232-237
29. Gui D, Cassetta E, Anastasio G, et al: Botulinum toxin for chronic anal fissure. *Lancet* 1994; 344:1127-1128
30. Jost WH & Schimrigk K: Therapy of anal fissure using botulin toxin. *Dis Colon Rectum* 1994; 37:1321-1324
31. American Gastroenterological Association. AGA medical position statement: Diagnosis and care of patients with anal fissure. *Gastroenterology* 2003;123:233-4
32. Pongvarin N, Viriyavejakul A, & Komoltri C: Placebo-controlled double-blind cross-over study of botulinum A toxin in hemifacial spasm. *Parkinsonism Relat Disord* 1995; 1(2):85-88
33. Chen RS, Lu CS, & Tsai CH: Botulinum toxin A injection in the treatment of hemifacial spasm. *Acta Neurol Scand* 1996; 94(3):207-211
34. Blitzer A, Brin MF, & Stewart CF: Botulinum toxin management of spasmodic dysphonia (laryngeal dystonia): a 12-year experience in more than 900 patients. *Laryngoscope* 1998; 108(10):1435-1441

35. Liu TC, Irish JC, Adams SG, et al: Prospective study of patients' subjective responses to botulinum toxin injection for spasmodic dysphonia. *J Otolaryngology* 1996; 25:66-74
36. Blitzer A & Brin MF: Laryngeal dystonia: a series with botulinum toxin therapy. *Ann Otol Rhinol Laryngol* 1991; 100:85-89
37. Ludlow CL: Treatment of speech and voice disorders with botulinum toxin. *JAMA* 1990; 264:2671-2675
38. Tan EK, Jankovic J. Botulinum toxin A in patients with oromandibular dystonia: long-term follow-up. *Neurology* 1999;53(9):2102-7
39. Jankovic J & Hallett M: *Neurological Disease and Therapy: Therapy with Botulinum Toxin*, 25, M. Dekker, New York, NY, 1994, pp -.
40. Blitzer A, Brin MF, Greene PE, et al: Botulinum toxin injection for the treatment of oromandibular dystonia. *Ann Otol Rhinol Laryngol* 1989; 98(2):93-97
41. Jankovic J, Schwartz K, & Donovan DT: Botulinum toxin treatment of cranial-cervical dystonia, spasmodic dysphonia, other focal dystonias and hemifacial spasm. *J Neurol Neurosurg Psychiatry* 1990; 53(8):633-639
42. Ondo WG, Hunter C, Moore W. A double-blind placebo-controlled trial of botulinum toxin B for sialorrhea in Parkinson's disease. *Neurology*. 2004; 62:37-40.
43. Racette BA, Good L, Sagitto S, Perlmutter JS. Botulinum toxin B reduces sialorrhea in Parkinsonism. *Mov Disord*. 2003; 18:1059-1061.
44. Simpson DM, Hallett M, Ashman EJ, et al. Practice guideline update summary: Botulinum neurotoxin for the treatment of blepharospasm, cervical dystonia, adult spasticity, and headache. Report of the Guideline Development Subcommittee of the American Academy of Neurology. *Neurology* 2016: 86:1-9.
45. Egan JV, Baron TH, Adler DG, Davila R, Faigel DO, Gan SL, Hirota WK, Leighton JA, Lichtenstein D, Qureshi WA, Rajan E, Shen B, Zuckerman MJ, Vanguilder T, Fanelli RD, Standards of Practice Committee. Esophageal dilation. *Gastrointest Endosc* 2006 May; 63(6):755-60.
46. Oman LA, Mooney JF III, Smith BP, et al. Botulinum toxin type A neuromuscular blockade in the treatment of lower extremity spasticity in cerebral palsy: A randomized, double-blind, placebo controlled trial. *J Pediatr Orthop* 2000; 20:108-115.
47. Perry WB, Dykes SL, Buie WD, Rafferty JF, Standards Practice Task Force of the American Society of Colon and Rectal Surgeons. Practice parameters for the management of anal fissures (3rd revision). *Dis Colon Rectum*. 2010 Aug; 53(8):1110-5.
48. Schwartz S, Cohen S, Dailey S, et al. Clinical practice guideline: hoarseness (dysphonia). *Otolaryngol Head Neck Surg*. 2009 Sep; 141(3S2):S1-S31.
49. Cillino S, Raimondi G, Guépratte N, et al. Long-term efficacy of botulinum toxin A for treatment of blepharospasm, hemifacial spasm, and spastic entropion: a multicentre study using two drug-dose escalation indexes. *Eye (Lond)*. 2010 Apr; 24(4):600-7. doi: 10.1038/eye.2009.192.
50. Defazio G, Abbruzzese G, Girlanda P, et al. Botulinum toxin A treatment for primary hemifacial spasm: a 10-year multicenter study. *Arch Neurol*. 2002 Mar; 59(3):418-20.
51. Berardelli A, Formica A, Mercuri B, et al. Botulinum toxin treatment in patients with focal dystonia and hemifacial spasm. A multicenter study of the Italian Movement Disorder Group. *Ital J Neurol Sci*. 1993 Jun; 14(5):361-7.

52. Solish N, Bertucci V, Dansereau A, et al. A comprehensive approach to the recognition, diagnosis, and severity-based treatment of focal hyperhidrosis: recommendations of the Canadian Hyperhidrosis Advisory Committee. *Dermatol Surg*. 2007 Aug; 33(8):908-23.
53. The International Classification of Headache Disorders, 3rd edition. Headache Classification Committee of the International Headache Society (IHS) Cephalalgia. 2018; 38(1):1-211.
54. Garza I, Schwedt TJ. (2022) Chronic Migraine. In Swanson JW (Ed). *UpToDate*. Accessed on April 6, 2022). Available from [https://www.uptodate.com/contents/chronic-migraine?search=chronic%20migraine&source=search\\_result&selectedTitle=1~68&usage\\_type=default&display\\_rank=1](https://www.uptodate.com/contents/chronic-migraine?search=chronic%20migraine&source=search_result&selectedTitle=1~68&usage_type=default&display_rank=1).
55. Lightner DJ, Gomelsky A, Souter L, et al. Diagnosis and Treatment of Overactive Bladder (Non-Neurogenic) in Adults: AUA/SUFU Guideline Amendment 2019. *J Urol*. 2019 Sep;202(3):558-563. doi: 10.1097/JU.0000000000000309.
56. Schwedt TJ. Chronic Migraine. *BMJ*. 2014;348:g1416.
57. Glaser DA, Hebert AA, Nast A, et al. Topical glycopyrronium tosylate for the treatment of primary axillary hyperhidrosis: Results from the ATMOS-1 and ATMOS-2 phase 3 randomized controlled trials. *J Am Acad Dermatol*. 2019;80(1):128. Epub 2018 Jul 10
58. American Headache Society. The American Headache Society Position Statement On Integrating New Migraine Treatments Into Clinical Practice. *Headache*. 2019 Jan;59(1):1-18. doi: 10.1111/head.13456. Epub 2018 Dec 10.
59. Haider A, Solish N. Focal hyperhidrosis: diagnosis and management. *CMAJ*. 2005;172(1):69-75.
60. Nawrocki S, Cha J. The Etiology, Diagnosis and Management of Hyperhidrosis: A Comprehensive Review. Part II. Therapeutic Options. *J Am Acad Dermatol*. 2019 Jan 30. pii: S0190-9622(19)30167-7.
61. American Society for Gastrointestinal Endoscopy (ASGE): Standards of practice for the role of endoscopy in patients with anorectal disorders. *Gastro Endo*. Volume 72, No. 6 : 2010
62. Wald A, Bharucha AE, Cosman BC, et al. American Gastroenterological Association. American Gastroenterological Association medical position statement: Diagnosis and care of patients with anal fissure. *Gastroenterology*. 2003;124(1):233.
63. Stewart DB, Gaertner W, Glasgow S, et al. Clinical Practice Guideline for the Management of Anal Fissures. *Dis Colon Rectum* 2017; 60: 7–14.
64. Kuo HC, Chen SL, Chou CL, et al. Taiwanese Continence Society clinical guidelines for diagnosis and management of neurogenic lower urinary tract dysfunction. *Urological Science*, Volume 25, Issue 2, 2014, pp. 35-41
65. Motz BM, Schlosser KA, Heniford BT. Chemical Components Separation: Concepts, Evidence, and Outcomes. *Plast Reconstr Surg*. 2018 Sep;142(3 Suppl):58S-63S. doi: 10.1097/PRS.0000000000004856.

66. Elstner KE, Read JW, Saunders J, et al. Selective muscle botulinum toxin A component paralysis in complex ventral hernia repair. *Hernia*. 2019 Apr 4. doi: 10.1007/s10029-019-01939-3.
67. Austin PF, Franco I, Dobremez E, et al. OnabotulinumtoxinA for the treatment of neurogenic detrusor overactivity in children. *Neurourol Urodyn*. 2020 Dec 11;40(1):493–501. doi: 10.1002/nau.24588.
68. Khashab MA, Vela MF, Thosani N, et al. American Society for Gastrointestinal Endoscopy (ASGE) guideline on the management of achalasia. *Gastrointest Endosc*. 2020;91(2):213. Epub 2019 Dec 13.
69. Safarpour Y, Mousavi T, Jabbari B. Botulinum Toxin Treatment in Multiple Sclerosis-a Review. *Curr Treat Options Neurol*. 2017 Aug 17;19(10):33. doi: 10.1007/s11940-017-0470-5.
70. Vaezi MF, Pandolfino JE, Yadlapati RH, et al. ACG Clinical Guidelines: Diagnosis and Management of Achalasia. *Am J Gastroenterol*. 2020 Sep;115(9):1393-1411. doi: 10.14309/ajg.0000000000000731.
71. Albanese A, Asmus F, Bhatia KP, et al. EFNS guidelines on diagnosis and treatment of primary dystonias. *Eur J Neurol*. 2011 Jan;18(1):5-18. doi: 10.1111/j.1468-1331.2010.03042.x.
72. Kobayashi T, Niimi S, Kumada M, et al. Botulinum toxin treatment for spasmodic dysphonia. *Acta Otolaryngol Suppl*. 1993;504:155-7. doi: 10.3109/00016489309128145.
73. Ludlow CL, Naunton RF, Terada S, et al. Successful treatment of selected cases of abductor spasmodic dysphonia using botulinum toxin injection. *Otolaryngol Head Neck Surg*. 1991 Jun;104(6):849-55. doi: 10.1177/019459989110400614.
74. Smith CC, Pariser MD. (2022) Primary focal hyperhidrosis. In Dellavalle RP, Owen C (Eds). *UpToDate*. Accessed on April 8, 2022). Available from [https://www.uptodate.com/contents/primary-focal-hyperhidrosis?search=palmar%20hyperhidrosis&source=search\\_result&selectedTitle=1~12&usage\\_type=default&display\\_rank=1#H706303135](https://www.uptodate.com/contents/primary-focal-hyperhidrosis?search=palmar%20hyperhidrosis&source=search_result&selectedTitle=1~12&usage_type=default&display_rank=1#H706303135).
75. Ailani J, Burch RC, Robbins MS; Board of Directors of the American Headache Society. The American Headache Society Consensus Statement: Update on integrating new migraine treatments into clinical practice. *Headache*. 2021 Jul;61(7):1021-1039. doi: 10.1111/head.14153.
76. Rueda J, Valverde A, Vera A, et al. Preliminary Findings of the Efficacy of Botulinum Toxin in Temporomandibular Disorders: Uncontrolled Pilot Study. *Life (Basel)*. 2023 Feb; 13(2): 345. Published online 2023 Jan 28. doi: 10.3390/life13020345
77. Gauer R, Semidey M. Diagnosis and Treatment of Temporomandibular Disorders. *Am Fam Physician*. 2015;91(6):378-386. <https://www.aafp.org/pubs/afp/issues/2015/0315/p378.html>
78. Khawaja S, Scrivani S, Holland N, et al. Effectiveness, Safety, and Predictors of Response to Botulinum Toxin Type A in Refractory Masticatory Myalgia: A Retrospective Study. *American Association of Oral and Maxillofacial Surgeons*. 0278-2391/17/30116-7. DOI:<https://doi.org/10.1016/j.joms.2017.01.031>
79. Mcconaghy J, Fosselma D. Hyperhidrosis: Management Options. *Am Fam Physician*. 2018;97(11):729-734. <https://www.aafp.org/pubs/afp/issues/2018/0601/p729.html#afp20180601p729-b4>

80. National Government Services, Inc. Local Coverage Article: Billing and Coding: Botulinum Toxins (A52848). Centers for Medicare & Medicaid Services, Inc. Updated on 12/22/2022 with effective date 01/05/2023. Accessed April 2023.
81. Noridian Healthcare Solutions, LLC. Local Coverage Article: Billing and Coding: Botulinum Toxin Types A and B (A57186). Centers for Medicare & Medicaid Services, Inc. Updated on 01/16/2023 with effective date 01/01/2023. Accessed April 2023.
82. Wisconsin Physicians Service Insurance Corporation. Local Coverage Article: Billing and Coding: Botulinum Toxin Type A & Type B (A57474). Centers for Medicare & Medicaid Services, Inc. Updated on 10/18/2022 with effective date 10/27/2022. Accessed April 2023.
83. CGS, Administrators, LLC. Local Coverage Article: Billing and Coding: Botulinum Toxins (A56472). Centers for Medicare & Medicaid Services, Inc. Updated on 12/29/2022 with effective date 12/01/2022. Accessed April 2023.
84. Noridian Healthcare Solutions, LLC. Local Coverage Article: Billing and Coding: Botulinum Toxin Types A and B Policy (A57185). Centers for Medicare & Medicaid Services, Inc. Updated on 01/16/2023 with effective date 01/01/2023. Accessed April 2023.
85. Palmetto GBA. Local Coverage Article: Billing and Coding: Chemodenervation (A56646). Centers for Medicare & Medicaid Services, Inc. Updated on 01/17/2023 with effective date 01/01/2023. Accessed April 2023.
86. Palmetto GBA. Local Coverage Article: Billing and Coding: Upper Gastrointestinal Endoscopy and Visualization (A56389). Centers for Medicare & Medicaid Services, Inc. Updated on 01/11/2023 with effective date 01/01/2023. Accessed April 2023.
87. First Coast Service Options, Inc. Local Coverage Article: Billing and Coding: Botulinum Toxins (A57715). Centers for Medicare & Medicaid Services, Inc. Updated on 02/04/2022 with effective date 02/10/2022. Accessed April 2023.
88. Novitas Solutions, Inc. Local Coverage Article: Billing and Coding: Botulinum Toxins (A58423). Centers for Medicare & Medicaid Services, Inc. Updated on 02/04/2022 with effective date 02/10/2022. Accessed April 2023.

## Appendix 1 – Covered Diagnosis Codes

ICD-10	ICD-10 Description
G11.4	Hereditary spastic paraplegia
G24.3	Spasmodic torticollis
G24.4	Idiopathic orofacial dystonia
G24.5	Blepharospasm
G24.9	Dystonia, unspecified
G25.89	Other specified extrapyramidal and movement disorders
G35	Multiple sclerosis
G37.0	Diffuse sclerosis of central nervous system
G43.701	Chronic migraine without aura, not intractable, with status migrainosus



ICD-10	ICD-10 Description
G43.709	Chronic migraine without aura, not intractable, without status migrainosus
G43.711	Chronic migraine without aura, intractable, with status migrainosus
G43.719	Chronic migraine without aura, intractable, without status migrainosus
G51.3	Clonic hemifacial spasm
G51.31	Clonic hemifacial spasm, right
G51.32	Clonic hemifacial spasm, left
G51.33	Clonic hemifacial spasm, bilateral
G51.39	Clonic hemifacial spasm, unspecified
G80.0	Spastic quadriplegic cerebral palsy
G80.1	Spastic diplegic cerebral palsy
G80.2	Spastic hemiplegic cerebral palsy
G80.3	Athetoid cerebral palsy
G80.4	Ataxic cerebral palsy
G80.8	Other cerebral palsy
G80.9	Cerebral palsy, unspecified
G81.10	Spastic hemiplegia affecting unspecified side
G81.11	Spastic hemiplegia affecting right dominant side
G81.12	Spastic hemiplegia affecting left dominant side
G81.13	Spastic hemiplegia affecting right nondominant side
G81.14	Spastic hemiplegia affecting left nondominant side
G82.20	Paraplegia, unspecified
G82.21	Paraplegia, complete
G82.22	Paraplegia, incomplete
G82.50	Quadriplegia, unspecified
G82.51	Quadriplegia, C1-C4 complete
G82.52	Quadriplegia, C1-C4 incomplete
G82.53	Quadriplegia, C5-C7 complete
G82.54	Quadriplegia, C5-C7 incomplete
G83.0	Diplegia of upper limbs
G83.10	Monoplegia of lower limb affecting unspecified side
G83.11	Monoplegia of lower limb affecting right dominant side
G83.12	Monoplegia of lower limb affecting left dominant side
G83.13	Monoplegia of lower limb affecting right nondominant side
G83.14	Monoplegia of lower limb affecting left nondominant side
G83.20	Monoplegia of upper limb affecting unspecified side
G83.21	Monoplegia of upper limb affecting right dominant side
G83.22	Monoplegia of upper limb affecting left dominant side
G83.23	Monoplegia of upper limb affecting right nondominant side
G83.24	Monoplegia of upper limb affecting left nondominant side

ICD-10	ICD-10 Description
G83.4	Cauda equina syndrome
H49.00	Third [oculomotor] nerve palsy, unspecified eye
H49.01	Third [oculomotor] nerve palsy, right eye
H49.02	Third [oculomotor] nerve palsy, left eye
H49.03	Third [oculomotor] nerve palsy, bilateral
H49.10	Fourth [trochlear] nerve palsy, unspecified eye
H49.11	Fourth [trochlear] nerve palsy, right eye
H49.12	Fourth [trochlear] nerve palsy, left eye
H49.13	Fourth [trochlear] nerve palsy, bilateral
H49.20	Sixth [abducent] nerve palsy, unspecified eye
H49.21	Sixth [abducent] nerve palsy, right eye
H49.22	Sixth [abducent] nerve palsy, left eye
H49.23	Sixth [abducent] nerve palsy, bilateral
H49.30	Total (external) ophthalmoplegia, unspecified eye
H49.31	Total (external) ophthalmoplegia, right eye
H49.32	Total (external) ophthalmoplegia, left eye
H49.33	Total (external) ophthalmoplegia, bilateral
H49.40	Progressive external ophthalmoplegia, unspecified eye
H49.41	Progressive external ophthalmoplegia, right eye
H49.42	Progressive external ophthalmoplegia, left eye
H49.43	Progressive external ophthalmoplegia, bilateral
H49.881	Other paralytic strabismus, right eye
H49.882	Other paralytic strabismus, left eye
H49.883	Other paralytic strabismus, bilateral
H49.889	Other paralytic strabismus, unspecified eye
H49.9	Unspecified paralytic strabismus
H50.00	Unspecified esotropia
H50.011	Monocular esotropia, right eye
H50.012	Monocular esotropia, left eye
H50.021	Monocular esotropia with A pattern, right eye
H50.022	Monocular esotropia with A pattern, left eye
H50.031	Monocular esotropia with V pattern, right eye
H50.032	Monocular esotropia with V pattern, left eye
H50.041	Monocular esotropia with other noncomitancies, right eye
H50.042	Monocular esotropia with other noncomitancies, left eye
H50.05	Alternating esotropia
H50.06	Alternating esotropia with A pattern
H50.07	Alternating esotropia with V pattern
H50.08	Alternating esotropia with other noncomitancies

ICD-10	ICD-10 Description
H50.10	Unspecified exotropia
H50.111	Monocular exotropia, right eye
H50.112	Monocular exotropia, left eye
H50.121	Monocular exotropia with A pattern, right eye
H50.122	Monocular exotropia with A pattern, left eye
H50.131	Monocular exotropia with V pattern, right eye
H50.132	Monocular exotropia with V pattern, left eye
H50.141	Monocular exotropia with other noncomitancies, right eye
H50.142	Monocular exotropia with other noncomitancies, left eye
H50.15	Alternating exotropia
H50.16	Alternating exotropia with A pattern
H50.17	Alternating exotropia with V pattern
H50.18	Alternating exotropia with other noncomitancies
H50.21	Vertical strabismus, right eye
H50.21	Vertical strabismus, right eye
H50.22	Vertical strabismus, left eye
H50.30	Unspecified intermittent heterotropia
H50.311	Intermittent monocular esotropia, right eye
H50.312	Intermittent monocular esotropia, left eye
H50.32	Intermittent alternating esotropia
H50.331	Intermittent monocular exotropia, right eye
H50.332	Intermittent monocular exotropia, left eye
H50.34	Intermittent alternating exotropia
H50.40	Unspecified heterotropia
H50.411	Cyclotropia, right eye
H50.412	Cyclotropia, left eye
H50.42	Monofixation syndrome
H50.43	Accommodative component in esotropia
H50.50	Unspecified heterophoria
H50.51	Esophoria
H50.52	Exophoria
H50.53	Vertical heterophoria
H50.54	Cyclophoria
H50.55	Alternating hyperphoria
H50.60	Mechanical strabismus, unspecified
H50.611	Brown's sheath syndrome, right eye
H50.612	Brown's sheath syndrome, left eye
H50.69	Other mechanical strabismus
H50.811	Duane's syndrome, right eye

ICD-10	ICD-10 Description
H50.812	Duane's syndrome, left eye
H50.89	Other specified strabismus
H50.9	Unspecified strabismus
H51.0	Palsy (spasm) of conjugate gaze
H51.11	Convergence insufficiency
H51.12	Convergence excess
H51.20	Internuclear ophthalmoplegia, unspecified eye
H51.21	Internuclear ophthalmoplegia, right eye
H51.22	Internuclear ophthalmoplegia, left eye
H51.23	Internuclear ophthalmoplegia, bilateral
H51.8	Other specified disorders of binocular movement
H51.9	Unspecified disorder of binocular movement
I69.031	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting right dominant side
I69.032	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting left dominant side
I69.033	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting right non-dominant side
I69.034	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting left non-dominant side
I69.039	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting unspecified side
I69.041	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting right dominant side
I69.042	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting left dominant side
I69.043	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting right non-dominant side
I69.044	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting left non-dominant side
I69.049	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting unspecified side
I69.051	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting right dominant side
I69.052	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting left dominant side
I69.053	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting right non-dominant side
I69.054	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting left non-dominant side
I69.059	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting unspecified side
I69.131	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting right dominant side
I69.132	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting left dominant side
I69.133	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting right non-dominant side
I69.134	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting left non-dominant side
I69.139	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting unspecified site
I69.141	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting right dominant side
I69.142	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting left dominant side

ICD-10	ICD-10 Description
I69.143	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting right non-dominant side
I69.144	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting left non-dominant side
I69.149	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting unspecified site
I69.151	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting right dominant side
I69.152	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting left dominant side
I69.153	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting right non-dominant side
I69.154	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting left non-dominant side
I69.159	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting unspecified side
I69.231	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting right dominant side
I69.232	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting left dominant side
I69.233	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting right non-dominant side
I69.234	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting left non-dominant side
I69.239	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting unspecified site
I69.241	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting right dominant side
I69.242	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting left dominant side
I69.243	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting right non-dominant side
I69.244	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting left non-dominant side
I69.249	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting unspecified site
I69.251	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting right dominant side
I69.252	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting left dominant side
I69.253	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting right non-dominant side
I69.254	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting left non-dominant side
I69.259	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting unspecified side
I69.331	Monoplegia of upper limb following cerebral infarction affecting right dominant side
I69.332	Monoplegia of upper limb following cerebral infarction affecting left dominant side
I69.333	Monoplegia of upper limb following cerebral infarction affecting right non-dominant side
I69.334	Monoplegia of upper limb following cerebral infarction affecting left non-dominant side
I69.339	Monoplegia of upper limb following cerebral infarction affecting unspecified site
I69.341	Monoplegia of lower limb following cerebral infarction affecting right dominant side
I69.342	Monoplegia of lower limb following cerebral infarction affecting left dominant side
I69.343	Monoplegia of lower limb following cerebral infarction affecting right non-dominant side
I69.344	Monoplegia of lower limb following cerebral infarction affecting left non-dominant side

ICD-10	ICD-10 Description
169.349	Monoplegia of lower limb following cerebral infarction affecting unspecified site
169.351	Hemiplegia and hemiparesis following cerebral infarction affecting right dominant side
169.352	Hemiplegia and hemiparesis following cerebral infarction affecting left dominant side
169.353	Hemiplegia and hemiparesis following cerebral infarction affecting right non-dominant side
169.354	Hemiplegia and hemiparesis following cerebral infarction affecting left non-dominant side
169.359	Hemiplegia and hemiparesis following cerebral infarction affecting unspecified side
169.831	Monoplegia of upper limb following other cerebrovascular disease affecting right dominant side
169.832	Monoplegia of upper limb following other cerebrovascular disease affecting left dominant side
169.833	Monoplegia of upper limb following other cerebrovascular disease affecting right non-dominant side
169.834	Monoplegia of upper limb following other cerebrovascular disease affecting left non-dominant side
169.839	Monoplegia of upper limb following other cerebrovascular disease affecting unspecified site
169.841	Monoplegia of lower limb following other cerebrovascular disease affecting right dominant side
169.842	Monoplegia of lower limb following other cerebrovascular disease affecting left dominant side
169.843	Monoplegia of lower limb following other cerebrovascular disease affecting right non-dominant side
169.844	Monoplegia of lower limb following other cerebrovascular disease affecting left non-dominant side
169.849	Monoplegia of lower limb following other cerebrovascular disease affecting unspecified site
169.851	Hemiplegia and hemiparesis following other cerebrovascular disease affecting right dominant side
169.852	Hemiplegia and hemiparesis following other cerebrovascular disease affecting left dominant side
169.853	Hemiplegia and hemiparesis following other cerebrovascular disease affecting right non-dominant side
169.854	Hemiplegia and hemiparesis following other cerebrovascular disease affecting left non-dominant side
169.859	Hemiplegia and hemiparesis following other cerebrovascular disease affecting unspecified side
169.931	Monoplegia of upper limb following unspecified cerebrovascular disease affecting right dominant side
169.932	Monoplegia of upper limb following unspecified cerebrovascular disease affecting left dominant side
169.933	Monoplegia of upper limb following unspecified cerebrovascular disease affecting right non-dominant side
169.934	Monoplegia of upper limb following unspecified cerebrovascular disease affecting left non-dominant side
169.939	Monoplegia of upper limb following unspecified cerebrovascular disease affecting unspecified side
169.941	Monoplegia of lower limb following unspecified cerebrovascular disease affecting right dominant side
169.942	Monoplegia of lower limb following unspecified cerebrovascular disease affecting left dominant side
169.943	Monoplegia of lower limb following unspecified cerebrovascular disease affecting right non-dominant side
169.944	Monoplegia of lower limb following unspecified cerebrovascular disease affecting left non-dominant side
169.949	Monoplegia of lower limb following unspecified cerebrovascular disease affecting unspecified side
169.951	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting right dominant side
169.952	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting left dominant side
169.953	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting right non-dominant side
169.954	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting left non-dominant side
169.959	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting unspecified side
J38.3	Other diseases of vocal cords
K43.6	Other and unspecified ventral hernia with obstruction, without gangrene
K43.7	Other and unspecified ventral hernia with gangrene

ICD-10	ICD-10 Description
K43.9	Ventral hernia without obstruction or gangrene
K11.7	Disturbances of salivary secretions
K22.0	Achalasia of cardia
K60.1	Chronic anal fissure
L74.510	Primary focal hyperhidrosis, axilla
L74.512	Primary focal hyperhidrosis, palms
M43.6	Torticollis
M26.60	Temporomandibular joint disorder, unspecified
N31.0	Uninhibited neuropathic bladder, not elsewhere classified
N31.1	Reflex neuropathic bladder, not elsewhere classified
N31.8	Other neuromuscular dysfunction of bladder
N31.9	Neuromuscular dysfunction of bladder, unspecified
N32.81	Overactive bladder

Dual coding requirements:

- Primary G and M codes require a secondary G or I code in order to be payable

## Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD), Local Coverage Determinations (LCDs), and Local Coverage Articles (LCAs) may exist and compliance with these policies is required where applicable. They can be found at: <https://www.cms.gov/medicare-coverage-database/search.aspx>. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD/LCA):

<b>Jurisdiction(s):</b> 6 & K	<b>NCD/LCD/LCA Document(s):</b> A52848  <a href="https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a52848&amp;areaid=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP">https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a52848&amp;areaid=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP</a>
<b>Jurisdiction(s):</b> F	<b>NCD/LCD/LCA Document(s):</b> A57186  <a href="https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a57186&amp;areaid=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP">https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a57186&amp;areaid=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP</a>

<b>Jurisdiction(s):</b> E	<b>NCD/LCD/LCA Document(s):</b> A57185
<a href="https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a57185&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP">https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a57185&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP</a>	

<b>Jurisdiction(s):</b> 5 & 8	<b>NCD/LCD/LCA Document(s):</b> A57474
<a href="https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a57474&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP">https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a57474&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP</a>	

<b>Jurisdiction(s):</b> 15	<b>NCD/LCD/LCA Document(s):</b> A56472
<a href="https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a56472&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP">https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a56472&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP</a>	

<b>Jurisdiction(s):</b> J & M	<b>NCD/LCD/LCA Document(s):</b> A56646
<a href="https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a56646&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP">https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a56646&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP</a>	

<b>Jurisdiction(s):</b> J & M	<b>NCD/LCD/LCA Document(s):</b> A56389
<a href="https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a56389&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP">https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a56389&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP</a>	

<b>Jurisdiction(s):</b> 9; N	<b>NCD/LCD/LCA Document(s):</b> A57715
<a href="https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a57715&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP">https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a57715&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP</a>	

<b>Jurisdiction(s):</b> H & L	<b>NCD/LCD/LCA Document(s):</b> A58423
<a href="https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a58423&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP">https://www.cms.gov/medicare-coverage-database/new-search/search-results.aspx?keyword=a58423&amp;areald=all&amp;docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP</a>	

### Medicare Part B Administrative Contractor (MAC) Jurisdictions

Jurisdiction	Applicable State/US Territory	Contractor
E (1)	CA, HI, NV, AS, GU, CNMI	Noridian Healthcare Solutions, LLC



Medicare Part B Administrative Contractor (MAC) Jurisdictions		
Jurisdiction	Applicable State/US Territory	Contractor
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC
5	KS, NE, IA, MO	Wisconsin Physicians Service Insurance Corp (WPS)
6	MN, WI, IL	National Government Services, Inc. (NGS)
H (4 & 7)	LA, AR, MS, TX, OK, CO, NM	Novitas Solutions, Inc.
8	MI, IN	Wisconsin Physicians Service Insurance Corp (WPS)
N (9)	FL, PR, VI	First Coast Service Options, Inc.
J (10)	TN, GA, AL	Palmetto GBA, LLC
M (11)	NC, SC, WV, VA (excluding below)	Palmetto GBA, LLC
L (12)	DE, MD, PA, NJ, DC (includes Arlington & Fairfax counties and the city of Alexandria in VA)	Novitas Solutions, Inc.
K (13 & 14)	NY, CT, MA, RI, VT, ME, NH	National Government Services, Inc. (NGS)
15	KY, OH	CGS Administrators, LLC