ClinicalTrials.gov Protocol Registration and Results System (PRS) Receipt
Release Date: 08/30/2011

ClinicalTrials.gov ID: NCT00076687

Study Identification

Unique Protocol ID:	191622-057
Brief Title:	Safety Study of Botulinum Toxin Type A in Post-Upper Limb Stroke Patients With Reduced Lung Function
Official Title:	
Secondary IDs:	

Study Status

Record Verification:	August 2011
Overall Status:	Completed
Study Start:	October 2003
Primary Completion:	August 2009 [Actual]
Study Completion:	August 2009 [Actual]

Sponsor/Collaborators

Sponsor:	Allergan
Responsible Party:	Sponsor
Collaborators:	

Oversight

FDA Regulated?:	Yes
Applicable Trial?:	Section 801 Clinical Trial? Yes Delayed Posting? No

IND/IDE Protocol?:	Yes
IND/IDE Information:	Grantor: CDER IND/IDE Number: BB IND 5716 Serial Number: Has Expanded Access? No
Review Board:	Approval Status: Board Name: Board Affiliation: Phone: Email:
Data Monitoring?:	
Plan to Share Data?:	
Oversight Authorities:	United States: Food and Drug Administration

Study Description

Brief Summary:	The purpose of this study is to evaluate the safety of injections of botulinum toxin Type A in patients with reduced lung function and focal upper limb poststroke spasticity
Detailed Description:	

Conditions

Conditions:	Stroke Muscle Spasticity Motor Neuron Disease
Keywords:	

Study Design

Study Type:	Interventional
Primary Purpose:	Treatment
Study Phase:	Phase 2
Intervention Model:	Parallel Assignment
Number of Arms:	3
Masking:	Double Blind (Subject, Caregiver, Investigator, Outcomes Assessor)

Allocation:	Randomized
Endpoint Classification:	Safety Study
Enrollment:	155 [Actual]

Arms and Interventions

Arms	Assigned Interventions
Experimental: 1	Biological/Vaccine: botulinum toxin Type A botulinum toxin Type A 240 U injection on Day 1, Week 12, Week 18 Other Names: • BOTOX®
Experimental: 2	Biological/Vaccine: botulinum toxin Type A botulinum toxin Type A 360 U injection at Day 1, Week 12, Week 18 Other Names: • BOTOX®
Placebo Comparator: 3	Drug: saline Saline injection at Day 1, Week 12, Week 18

Outcome Measures

[See Results Section.]

Eligibility

Minimum Age:	18 Years
Maximum Age:	
Gender:	Both
Accepts Healthy Volunteers?:	No
Criteria:	Inclusion Criteria:

- Abnormal pulmonary function test results;
- focal, upper limb spasticity, upper motor neuron syndrome

Exclusion Criteria:

- Previous exposure to botulinum toxin of any serotype

Contacts/Locations

Study Officials: Medical Director
Study Director
Allergan, Inc.

Locations: Czech Republic
Prague, Czech Republic

Hungary
Szeged, Hungary

Poland
Warsaw, Poland

United States, Florida
Miami, Florida, United States

References

Citations:

Links:

Study Data/Documents:

Study Results

Participant Flow

Reporting Groups

	Description
Placebo	Placebo
Botulinum Toxin Type A 240 U	botulinum toxin Type A 240 U
Botulinum Toxin Type A 360 U	botulinum toxin Type A 360 U

Overall Study

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
Started	48	52	55
Completed	42	47	51
Not Completed	6	5	4

Baseline Characteristics

Reporting Groups

	Description
Placebo	Placebo
Botulinum Toxin Type A 240 U	botulinum toxin Type A 240 U
Botulinum Toxin Type A 360 U	botulinum toxin Type A 360 U

Baseline Measures

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U	Total
Number of Participants	48	52	55	155
Age, Continuous [units: years] Mean (Full Range)	58 (18 to 80)	55.5 (21 to 83)	55.8 (19 to 81)	56.4 (18 to 83)
Gender, Male/Female [units: participants]				
Female	19	13	21	53
Male	29	39	34	102

Outcome Measures

1. Primary Outcome Measure:

Measure Title	Change From Baseline in Forced Vital Capacity (FVC)
Measure Description	Change from baseline in observed FVC. FVC is the maximum amount of air exhaled from the lungs after taking the deepest breath possible. Patients perform three to eight exhalations into a spirometer with the highest value recorded at Baseline and Week 6.
Time Frame	Baseline, Week 6

Safety Issue?	No

Analysis Population Description
Safety

Reporting Groups

	Description
Placebo	Placebo
Botulinum Toxin Type A 240 U	botulinum toxin Type A 240 U
Botulinum Toxin Type A 360 U	botulinum toxin Type A 360 U

Measured Values

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
Number of Participants Analyzed	48	52	55
Change From Baseline in Forced Vital Capacity (FVC) [units: Liters of air] Mean (Standard Deviation)			
Baseline	2.889 (0.7804)	3.068 (0.8766)	2.923 (0.7627)
Change from Baseline at Week 6	0.057 (0.3151)	0.052 (0.2883)	-0.081 (0.2531)

2. Primary Outcome Measure:

Measure Title	Change From Baseline in Forced Expiratory Volume (FEV1)
Measure Description	Change from baseline in observed FEV1 at one second. FEV1 is the maximum amount of air exhaled in one second. Patients perform three to eight exhalations into a spirometer with the highest value recorded at Baseline and Week 6.
Time Frame	Baseline, Week 6
Safety Issue?	No

Analysis Population Description
Safety

Reporting Groups

	Description
Placebo	Placebo

	Description
Botulinum Toxin Type A 240 U	botulinum toxin Type A 240 U
Botulinum Toxin Type A 360 U	botulinum toxin Type A 360 U

Measured Values

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
Number of Participants Analyzed	48	52	55
Change From Baseline in Forced Expiratory Volume (FEV1) [units: Liters of air] Mean (Standard Deviation)			
Baseline	2.111 (0.5944)	2.223 (0.6492)	2.168 (0.6568)
Change from Baseline at Week 6	0.049 (0.1971)	0.023 (0.2925)	-0.008 (0.2340)

3. Secondary Outcome Measure:

Measure Title	Change From Baseline in FEV1/FVC Ratio
Measure Description	Change from baseline in FEV1/FVC ratio. This ratio is calculated by dividing the FEV1 value by the FVC value. This represents that portion (or ratio) of FVC exhaled in one second.
Time Frame	Baseline, Week 6
Safety Issue?	No

Analysis Population Description

Safety

Reporting Groups

	Description
Placebo	Placebo
Botulinum Toxin Type A 240 U	botulinum toxin Type A 240 U
Botulinum Toxin Type A 360 U	botulinum toxin Type A 360 U

Measured Values

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
Number of Participants Analyzed	48	52	55
Change From Baseline in FEV1/FVC Ratio [units: Ratio] Mean (Standard Deviation)			
Baseline	0.741 (0.1320)	0.731 (0.1260)	0.742 (0.1051)
Change from Baseline at Week 6	0.000 (0.0730)	-0.006 (0.0709)	0.019 (0.0699)

4. Secondary Outcome Measure:

Measure Title	Change From Baseline in Ashworth Scale
Measure Description	Change from Baseline in worst upper limb scores using the Ashworth Scale at Week 6 from Baseline. Upper limb includes finger, wrist, thumb, and elbow. Worst score was the highest value measured from the finger, wrist, thumb, or elbow at Baseline and Week 6 based on treated areas. The Ashworth Scale assesses the degree of muscle tone. It is a 5-point scale where 0 equals no increase in muscle tone and 4 equals very severe muscle rigidity. A low score indicates little or no stiffness. A high score indicates severe stiffness. A negative change from baseline score indicates improvement.
Time Frame	Baseline, Week 6
Safety Issue?	No

Analysis Population Description
Intent to Treat

Reporting Groups

	Description
Placebo	Placebo
Botulinum Toxin Type A 240 U	botulinum toxin Type A 240 U
Botulinum Toxin Type A 360 U	botulinum toxin Type A 360 U

Measured Values

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
Number of Participants Analyzed	48	52	55

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
Change From Baseline in Ashworth Scale [units: Number on a scale] Mean (Standard Deviation)			
Baseline	3.19 (0.607)	2.87 (0.561)	2.96 (0.693)
Change from Baseline at Week 6	-0.60 (0.564)	-1.01 (0.801)	-1.16 (0.834)

Reported Adverse Events

Time Frame	[Not specified]
Additional Description	[Not specified]

Reporting Groups

	Description
Placebo	Placebo
Botulinum Toxin Type A 240 U	botulinum toxin Type A 240 U
Botulinum Toxin Type A 360 U	botulinum toxin Type A 360 U

Serious Adverse Events

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
	Affected/At Risk (%)	Affected/At Risk (%)	Affected/At Risk (%)
Total	7/48 (14.58%)	9/52 (17.31%)	6/55 (10.91%)
Blood and lymphatic system disorders			
Anaemia [A] †	1/48 (2.08%)	0/52 (0%)	0/55 (0%)
Cardiac disorders			
Acute coronary syndrome [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Angina Pectoris [A] †	1/48 (2.08%)	0/52 (0%)	0/55 (0%)
Cardiac arrest [A] †	0/48 (0%)	0/52 (0%)	1/55 (1.82%)

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
	Affected/At Risk (%)	Affected/At Risk (%)	Affected/At Risk (%)
Cardiac failure congestive [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Myocardial infarction [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Congenital, familial and genetic disorders			
Meningocele [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
General disorders			
Chest pain [A] *	0/48 (0%)	0/52 (0%)	1/55 (1.82%)
Infections and infestations			
Abscess [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Acute endocarditis [A] †	0/48 (0%)	0/52 (0%)	1/55 (1.82%)
Appendicitis [A] †	0/48 (0%)	0/52 (0%)	1/55 (1.82%)
Bacteraemia [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Cellulitis [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Gastroenteritis [A] †	0/48 (0%)	0/52 (0%)	1/55 (1.82%)
Pneumonia [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Splenic abscess [A] †	1/48 (2.08%)	0/52 (0%)	0/55 (0%)
Wound infection [A] *	1/48 (2.08%)	0/52 (0%)	0/55 (0%)
Investigations			
Heart rate decreased [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Metabolism and nutrition disorders			
Hyperglycaemia [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Hyponatraemia [A] †	1/48 (2.08%)	0/52 (0%)	0/55 (0%)
Musculoskeletal and connective tissue disorders			
Mobility decreased [A] *	1/48 (2.08%)	0/52 (0%)	0/55 (0%)

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
	Affected/At Risk (%)	Affected/At Risk (%)	Affected/At Risk (%)
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Prostate cancer [A] †	1/48 (2.08%)	0/52 (0%)	1/55 (1.82%)
Nervous system disorders			
Cerebral infarction [A] †	1/48 (2.08%)	0/52 (0%)	0/55 (0%)
Cognitive disorder [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Convulsion [A] *	1/48 (2.08%)	0/52 (0%)	2/55 (3.64%)
Encephalitis [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Epilepsy [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Ischaemic stroke [A] †	0/48 (0%)	1/52 (1.92%)	0/55 (0%)
Syncope [A] *	1/48 (2.08%)	0/52 (0%)	0/55 (0%)
Renal and urinary disorders			
Renal failure [A] †	1/48 (2.08%)	0/52 (0%)	0/55 (0%)
Respiratory, thoracic and mediastinal disorders			
Chronic obstructive pulmonary disease [A] †	1/48 (2.08%)	1/52 (1.92%)	0/55 (0%)
Dyspnoea [A] *	0/48 (0%)	0/52 (0%)	1/55 (1.82%)
Vascular disorders			
Hypertension [A] †	0/48 (0%)	0/52 (0%)	1/55 (1.82%)
Hypotension [A] †	1/48 (2.08%)	1/52 (1.92%)	0/55 (0%)

† Indicates events were collected by systematic assessment.
* Indicates events were collected by non-systematic methods.
A Term from vocabulary, MedDRA (12.0)

Other Adverse Events

Frequency Threshold Above Which Other Adverse Events are Reported: 5%

	Placebo	Botulinum Toxin Type A 240 U	Botulinum Toxin Type A 360 U
	Affected/At Risk (%)	Affected/At Risk (%)	Affected/At Risk (%)
Total	18/48 (37.5%)	15/52 (28.85%)	17/55 (30.91%)
Gastrointestinal disorders			
Diarrhoea [A] *	4/48 (8.33%)	1/52 (1.92%)	2/55 (3.64%)
Vomiting [A] *	3/48 (6.25%)	1/52 (1.92%)	1/55 (1.82%)
Infections and infestations			
Upper respiratory tract infection [A] †	3/48 (6.25%)	4/52 (7.69%)	6/55 (10.91%)
Musculoskeletal and connective tissue disorders			
Musculoskeletal pain [A] *	1/48 (2.08%)	0/52 (0%)	3/55 (5.45%)
Pain in extremity [A] *	2/48 (4.17%)	3/52 (5.77%)	2/55 (3.64%)
Nervous system disorders			
Headache [A] *	3/48 (6.25%)	0/52 (0%)	3/55 (5.45%)
Muscle spasticity [A] †	0/48 (0%)	3/52 (5.77%)	0/55 (0%)
Respiratory, thoracic and mediastinal disorders			
Cough [A] *	2/48 (4.17%)	3/52 (5.77%)	0/55 (0%)

† Indicates events were collected by systematic assessment.

* Indicates events were collected by non-systematic methods.

A Term from vocabulary, MedDRA (12.0)

Limitations and Caveats

[Not specified]

More Information

Certain Agreements:

Principal Investigators are NOT employed by the organization sponsoring the study.

There IS an agreement between the Principal Investigator and the Sponsor (or its agents) that restricts the PI's rights to discuss or publish trial results after the trial is completed.

A disclosure restriction on the PI is that the sponsor can review results communications prior to public release and can embargo communications regarding trial results for a period that is less than or equal to 90 days from the time submitted to the sponsor for review. The sponsor cannot require changes to the communication and cannot extend the embargo.

Results Point of Contact:

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