

National Enteric Disease Surveillance: Botulism Annual Summary, 2011

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An overview of national botulism surveillance is available at:

http://www.cdc.gov/ncezid/dfwed/PDFs/bot-overview_508c.pdf

Summary of Botulism Cases Reported in 2011

A total of 140 confirmed cases of botulism (136 laboratory-confirmed and 4 epidemiologically-linked) were reported to CDC in 2011. Foodborne botulism accounted for 20 (14%), infant botulism for 102 (73%), wound botulism for 13 (9%), and botulism of unknown or other etiology for 5 (4%) cases (Table 1).

The 20 cases of foodborne intoxication were reported from nine states (Table 2). Of these, toxin type A accounted for 14 (70%), toxin type E for 5 (25%), and toxin type F for 1 (5%). The median age of patients was 42 years, with a range of 24–78 years; 15 (75%) were male. There were two outbreaks (events with two or more cases). One was associated with salmon eggs (associated with three cases in Alaska) and the other with pruno, an illicit alcoholic beverage brewed by prisoners (associated with eight cases in Utah). No deaths were reported (Table 3).

The 102 cases of infant botulism were reported from 27 states. Toxin type A accounted for 41 (40%), toxin type B for 60 (59%), and toxin type Ba for 1 (1%). The median age of patients was 17 weeks with a range of 2–50 weeks; 56 (55%) were male. No deaths were reported (Table 4).

The 13 cases of wound botulism were reported from four states (California [9 cases], Washington [2], Colorado [1], and Texas [1]). Toxin type A accounted for 13 (100%). All but two patients were injection drug users; one case was associated with a wound sustained in a motorcycle accident and one was associated with a facial wound caused by bark. The median age of patients was 38 years with a range of 5–62 years; 10 (77%) were male. No deaths were reported (Table 5).

The 5 cases of botulism of unknown or other etiology were reported from three states. Toxin type A accounted for all 5. The median age of patients was 74 years with a range of 27–79 years; 3 (60%) were male. Two deaths were reported (Table 6).

Table 1. Summary of reported botulism cases
— United States, 2011

Foodborne (20 cases)	
Median age	42 years (range: 24–78 years)
Death	0 confirmed
Gender	15 (75%) male, 5 (25%) female
Toxin type	14 (70%) type A 5 (25%) type E 1 (5%) type F
Outbreaks*	2
Infant (102 cases)	
Median age	17 weeks (range: 2–50 weeks)
Death	0 confirmed
Gender	56 (55%) male, 46 (45%) female
Toxin type	41 (40%) type A 60 (59%) type B 1 (1%) type Ba
Outbreaks	None
Wound (13 cases)	
Median age	38 years (range: 5–62 years)
Death	0 confirmed
Gender	10 (77%) male, 3 (23%) female
Toxin type	13 (100%) type A
Outbreaks	None
Unknown, Other (5 cases)	
Median age	74 years (range: 27–79 years)
Death	2 confirmed
Gender	3 (60%) male, 2 (40%) female
Toxin type	5 (100%) type A
Outbreaks	None
*outbreaks defined as two or more cases resulting from a common exposure	

Table 2. Cases of botulism by state and type (n=140)
— United States, January 1 – December 31, 2011

	Foodborne	Wound	Infant	Unknown, Other
Alaska	5			
Arizona	1		3	1
California	1	9	29	3
Colorado		1	3	
District of Columbia			1	
Delaware			2	
Georgia	1			
Idaho			2	
Indiana			1	
Kansas			1	
Kentucky			2	
Maryland			3	
Massachusetts			1	
Minnesota			1	
Mississippi			2	
Nevada			1	
New Jersey			11	
New Mexico			2	
New York			1	1
New York City	1		3	
North Carolina			1	
Ohio	1		1	
Oklahoma	1			
Oregon	1		2	
Pennsylvania			13	
Tennessee			3	
Texas		1	4	
Utah	8		4	
Virginia			2	
Washington		2	3	
Total	20	13	102	5

Table 3. Cases of foodborne botulism by month (n=20) — United States, January 1 – December 31, 2011

Month	State	Age (years)	Gender	Toxin Type	Vehicle	Death
January	CA	60	Male	A	Home-canned corn	No
January	OH	29	Male	A	Potato soup*	No
February	OR	78	Female	A	Home-canned green beans	No
March	OK	53	Female	F	Homemade kimchi*	No
April	AK	43	Male	E	Seal blubber	No
April	GA	45	Female	A	Potato soup*	No
August	AK [†]	52	Male	E	Salmon eggs [†]	No
August	AK [†]	54	Female	E	Salmon eggs [†]	No
August	AK [†]	59	Female	E	Salmon eggs [†]	No
August	NYC	59	Male	A	Homemade sauce; barley and cheese	No
September	AZ	44	Male	A	Baked potato*	No
October	UT [†]	24	Male	A	Pruno [†]	No
October	UT [†]	26	Male	A	Pruno [†]	No
October	UT [†]	26	Male	A	Pruno [†]	No
October	UT [†]	30	Male	A	Pruno [†]	No
October	UT [†]	31	Male	A	Pruno [†]	No
October	UT [†]	34	Male	A	Pruno [†]	No
October	UT [†]	34	Male	A	Pruno [†]	No
October	UT [†]	35	Male	A	Pruno [†]	No
November	AK	51	Male	E	Beaver	No

* Toxin not detected in food; food vehicle suspected based on epidemiologic evidence
† Toxin not detected in food; food vehicle implicated based on epidemiologic evidence
‡ Outbreak cases

Table 4. Cases of infant botulism by month (n=102) — United States, January 1 – December 31, 2011

Month	State	Age (weeks)	Gender	Toxin Type	Death
January	NJ	16	Male	B	No
January	AZ	5	Male	B	No
January	CA	6	Female	A	No
January	NC	30	Male	B	No
January	KY	23	Male	B	No
January	CA	17	Male	A	No
January	CA	21	Female	A	No
February	PA	15	Male	B	Unknown
February	PA	9	Female	B	No
February	MN	25	Female	B	No
February	TX	24	Male	A	No
February	ID	7	Female	B	No
February	CA	25	Male	B	No
February	CA	17	Male	A	No
February	CA	13	Female	A	No
March	NZ	30	Female	A	No
March	CA	28	Female	A	No
March	PA	6	Male	B	No
April	DC	27	Female	B	No
April	NM	22	Female	B	No
April	UT	24	Female	A	No
April	PA	16	Female	B	No
April	NJ	31	Male	B	No
April	TX	3	Female	A	No
April	NY	7	Male	B	No
April	UT	37	Male	A	No
May	CA	16	Female	A	No
May	CA	12	Male	A	No
May	VA	31	Male	B	No
May	CA	26	Female	A	No
May	PA	7	Male	B	Unknown
May	TX	16	Female	A	No

Table 4. Cases of infant botulism by month (n=102) — United States, January 1 – December 31, 2011 (continued)

Month	State	Age (weeks)	Gender	Toxin Type	Death
May	WA	11	Female	A	No
May	MD	4	Female	B	No
May	NYC	15	Male	B	No
May	NJ	18	Male	B	No
May	PA	29	Female	B	No
May	UT	19	Male	A	No
May	CA	35	Male	A	No
May	NJ	15	Male	B	No
June	OH	14	Female	B	No
June	CA	15	Female	B	No
June	CA	16	Female	A	No
June	KY	27	Male	B	No
June	CA	24	Female	A	No
June	NJ	18	Male	A	No
June	TX	23	Female	A	No
July	OR	22	Male	A	No
July	CA	16	Male	A	No
July	CA	33	Male	A	No
July	CA	6	Female	A	No
July	CO	5	Female	A	No
July	DE	5	Female	B	No
July	CA	14	Female	B	No
July	KS	7	Male	B	No
August	CA	6	Male	B	No
August	MS	2	Male	B	No
August	UT	38	Female	B	No
August	CA	33	Male	B	No
August	CA	27	Male	A	No
August	DE	12	Male	B	No
August	PA	17	Female	B	No
August	MS	4	Male	B	No
September	TN	7	Male	B	No
September	PA	29	Male	B	No
September	PA	18	Male	B	No

Table 4. Cases of infant botulism by month (n=102) — United States, January 1 – December 31, 2011 (continued)

Month	State	Age (weeks)	Gender	Toxin Type	Death
September	NZ	12	Female	B	No
September	AZ	18	Male	B	No
September	CA	20	Male	Ba	No
September	CA	19	Female	B	No
September	CA	3	Female	B	No
September	CA	17	Female	A	No
September	CA	33	Male	A	No
September	NV	14	Male	A	No
October	MD	10	Male	B	No
October	NJ	27	Female	A	No
October	NJ	30	Male	B	No
October	NJ	15	Female	B	No
October	PA	22	Male	B	No
October	OR	26	Male	A	No
October	PA	11	Female	B	No
October	PA	16	Female	B	No
October	NJ	24	Female	B	No
November	CA	20	Male	B	No
November	NJ	24	Male	B	No
November	NM	15	Male	A	No
November	WA	24	Female	A	No
December	CO	8	Male	A	No
December	ID	26	Female	A	No
December	CA	14	Female	B	No
December	AZ	8	Male	B	No
December	IN	29	Male	A	No
December	MD	20	Female	B	No
December	MA	16	Male	B	No
December	WA	13	Female	A	No
December	CA	27	Female	A	No
December	TN	9	Male	B	No
December	PA	9	Male	B	No

Table 5. Cases of wound botulism by month (n=13) — United States, January 1 – December 31, 2011

Month	State	Age (years)	Gender	Toxin Type	Exposure*	Death
January	CA	37	Male	A	IDU	No
January	CA	46	Male	A	IDU	No
February	CA	49	Female	A	IDU	No
March	WA	5	Male	A	Facial wound	No
May	CA	33	Male	A	IDU	No
May	CA	48	Male	A	IDU	No
June	CA	60	Male	A	IDU	No
June	CO	20	Male	A	Motorcycle accident	No
August	CA	35	Female	A	IDU	No
August	TX	52	Female	A	IDU	No
September	WA	38	Male	A	IDU	No
October	CA	34	Male	A	IDU	No
November	CA	62	Male	A	IDU	No

*IDU = injection drug user

Table 6. Cases of unknown or other botulism by month (n=5) — United States, January 1 – December 31, 2011

Month	State	Age (years)	Gender	Toxin Type	Exposure	Death
March	CA	64	Male	A	Unknown	No
April	AZ	74	Male	A	Unknown	No
April	NY	27	Male	A	Unknown	Yes
June	CA	79	Female	A	Unknown	Yes
November	CA	74	Female	A	Unknown	No

References

- 2012 Case Definitions: Nationally Notifiable Conditions Infectious and Non-Infections Case. (2012). Atlanta, GA: Centers for Disease Control and Prevention. Available at: http://wwwn.cdc.gov/nndss/document/2012_Case%20Definitions.pdf

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