

# WEEKLY EPIDEMIOLOGICAL REPORT

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**Botulism Part II** 

### Vol. 48 No. 40

This is the last of two articles

**Diagnosis and treatment** 

### 25<sup>th</sup> - 01<sup>th</sup> Oct 2021

# LANKA ZU

Diagnosis is usually based on clinical history and clinical examination followed by laboratory confirmation including demonstrating the presence of botulinum toxin in serum, stool or food, or a culture of *Clostridium botulinum* from stool, wound or food. Misdiagnosis of botulism sometimes occurs as it is often confused with stroke, Guillain-Barré syndrome or myasthenia gravis. Antitoxin should be administered as soon as possible after a clinical diagnosis. Early administration is effective in reducing mortality rates.

### Prevention

Prevention of foodborne botulism is based on good practice in food preparation particularly preservation and hygiene. Botulism may be prevented by the inactivation of the bacterial spores in heat-sterilized or canned products or by inhibiting bacterial growth in other products. Commercial heat pasteurization (vacuum packed pasteurized products, hot smoked products) may not be sufficient to kill all spores and therefore the safety of these products must be based on preventing bacterial growth and toxin production. Refrigeration temperatures combined with salt content and/or acidic conditions will prevent the growth of the bacteria and formation of toxin.

The WHO Five Keys to Safer Food are.

- keep clean
- separate raw and cooked
- cook thoroughly
- keep food at safe temperatures
- use safe water and raw materials.

### 'Botox'

The bacterium *Clostridium botulinum* is the same bacterium that is used to produce Botox, a pharmaceutical product predominantly injected for clinical and cosmetic use. Botox treatments employ the purified and heavily diluted botulinum neurotoxin type A.

### WHO's response

Botulism outbreaks are rare but are public health emergencies that require rapid

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recognition. WHO's role in responding to outbreaks of botulism that may be of international concern is as follows.

- Surveillance and detection
- Risk assessment: consideration of whether the outbreak is natural, accidental, or, possibly, intentional. • Containment at the disease source: coordinates with national and local authorities to contain outbreaks at their source.
- Delivery of assistance: coordinates between international agencies, experts, national laboratories, airlines, and commercial organizations to mobilize response equipment, materials, and supplies, including the provision and administration of botulinum antitoxin.

### Sources

Botulism, available at http://www.who.int/mediacentre/ factsheets/fs270/en/

Compiled by

Dr. C U D Gunasekara Epidemiology Unit Ministry of Health

# BOTULISM SYMPTOMS



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# 25<sup>th</sup>-01<sup>th</sup> Oct 2021

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## Table 2: Vaccine-Preventable Diseases & AFP

# 18th- 24th Sep 2021 (39th Week)

25th-01th Oct 2021

Disease		N	lo. of	Case	es by	y Pro	ovino	Number of cases during current	Number of cases during same	Total number of cases to	Total num- ber of cases to date in	Difference between the number of			
	w	С	S	N	Е	NW	NC	U	Sab	week in 2021	week in 2020	2021	2020	in 2021& 2020	
AFP*	00	00	00	00	00	00	00	00	01	01	02	49	35	40 %	
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%	
Mumps	00	00	00	01	00	00	00	00	00	01	04	59	145	- 59.3 %	
Measles	00	00	00	00	00	00	00	00	00	00	04	11	45	- 75.5 %	
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	00	0%	
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0%	
Tetanus	00	00	00	00	00	00	00	00	00	00	00	02	03	- 33.33%	
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0%	
Japanese En- cephalitis	00	00	00	00	00	00	00	00	00	00	00	04	31	- 87 %	
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	00	07	- 100%	
Tuberculosis	00	05	17	02	04	12	08	00	00	48	150	3756	4867	- 22.8 %	

### Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.

RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna,

KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS, Special Surveillance: AFP\* (Acute Flaccid Paralysis), Japanese Encephalitis CRS\*\* =Congenital Rubella Syndrome

**NA** = Not Available



Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication

# **ON STATE SERVICE**

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