

Laboratory

BREVETOXINS

I. Protocol Overview

Brevetoxins (BVX) are neurotoxins produced by algae believed responsible for massive fish kills from red tides. The toxin can be passed to humans via shellfish to cause neurotoxic shellfish poisoning (NSP). After oral ingestion, brevetoxin poisoning is characterized by abdominal pain, vomiting, and diarrhea, skin tingling or pricking (paresthesias), reversal of hot and cold temperature sensation, vertigo, headache, muscular uncoordination (ataxia), decreased heartbeat (bradycardia), and pupil dilation. Inhalational exposure can result in cough, shortness of breath (dyspnea), and bronchospasm. Incubation period ranges from 15 minutes - 18 hours.

For all suspected chemical exposures, consult the Poison Control Center (800-222-1222) located at Children's Hospital of Philadelphia. Information and treatment advice is available to the public and healthcare professionals at no charge.

Brevetoxin can be detected in environmental samples in commercial laboratories and by an enzyme-linked immunosorbent assay (ELISA) method in biologic samples. Some biological screening capabilities do exist that utilize liquid chromatography tandem mass spectroscopy (LC/MS/MS) techniques. Samples are extracted and pre-concentrated and then quantified using mass spectrometry analysis.

The Delaware Public Health Laboratory does not perform this testing. Contact the CDC or the Poison Control Center.

II. Contact Information

24/7 CDC Emergency Contact Number: 1-888-295-5156

Poison Control Center: 215-386-2100

III. CDC Website

http://emergency.cdc.gov/agent/brevetoxin/casedef.asp

24/7 Emergency Contact Number: 302-223-1520