



LONG-LASTING ANTI-COAGULANTS (Super Warfarin)

I. Protocol Overview

Warfarin (Coumadin, or bis-hydroxycoumarin) is used therapeutically as anticoagulants and commercially as rodenticides. Several long-acting coumarin derivatives, or superwarfarins (brodifacoum, diphenadione, chlorophacinone, bromadiolone) are used as rodenticides and can produce profound and prolonged anticoagulation. Most patients are asymptomatic after an unintentional ingestion.

Signs of decreased clotting ability (coagulopathy) typically occur within 24-72 hours post significant ingestion of a long-acting anticoagulant, and may present as nose and gum (epistaxis, gingival) bleeding, as well as bloody vomit, urine, feces, or uterus, (hematemesis, hematuria, hematochezia, menometrorrhagia), discoloration, splotching, and bleeding of the skin, tissues, and brain (ecchymosis, petechial hemorrhages, intracranial hemorrhages) or bleeding not in proportion with the injury.

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.

Long-lasting anticoagulants are detected indirectly through prolonged prothrombin time (PT) and international normalized ratio (INR) (24 to 72 hours after exposure) persisting for weeks to months, as determined by hospital laboratory tests or abnormal assays for factors II and VII in patients with unexplained bleeding and a normal PT, partial thromboplastin time, or INR, as determined by hospital or commercial laboratory tests. Serum levels of long lasting anticoagulant rodenticides can be determined using High-performance liquid chromatographic (HPLC) methods with ultraviolet (UV) and fluorescence detection. Liquid chromatography tandem mass spectrometry (LC/MS/MS) methods are used to detect long lasting anticoagulant rodenticides in food and environmental samples.

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/superwarfarin/casedefinition.asp>

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

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