



CASE DEFINITION

“Super Warfarin” Poisoning

Clinical description

Following an acute unintentional exposure to “super warfarin” (i.e., a long-acting anticoagulant), most patients are initially asymptomatic; however, vomiting may occur. Clinical signs of coagulopathy may occur in some patients within 24 to 72 hours (most commonly within 48 hours) post exposure. Coagulopathy may manifest as epistaxis, gingival bleeding, hematemesis, hemoptysis, hematuria, hematochezia, melena, menometrorrhagia, ecchymosis, petechiae, intracranial hemorrhages, or bleeding out of proportion to an injury. Tachycardia and hypotension may also occur in severely affected patients due to acute blood loss.

Laboratory criteria for diagnosis

One of the following:

- Prolonged prothrombin time (PT) and international normalized ratio (INR) (24 to 72 hours after exposure) persisting for weeks to months
- Abnormal assays for coagulation factors II, VII, IX, and X in patients with unexplained bleeding and normal PT/partial thromboplastin time (PTT) or INR
- Detection of a long-acting anticoagulant in biological samples

– OR –

- Detection of a long-acting anticoagulant in environmental samples

Case classification

- **Probable:** a clinically compatible case with a high index of suspicion (reliable intelligence or patient history) for a long-acting anticoagulant exposure
- **Confirmed:** a clinically compatible case with laboratory confirmation or with an epidemiological link to a laboratory-confirmed case

Additional resources

Goldfrank LR, Flomenbaum ME, Lewin NE, et al., editors. Goldfrank’s Toxicologic Emergencies. 7th ed. McGraw-Hill; 2002.

Corke PJ. Superwarfarin (brodifacoum) poisoning. *Anaesth Intensive Care* 1997;25:707–9.

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Barnett VT, Bergmann F, Humphrey H, Chediak J. Diffuse alveolar hemorrhage secondary to superwarfarin ingestion. *Chest* 1992;102:1301–2.

Kruse JA, Carlson RW. Fatal rodenticide poisoning with brodifacoum. *Ann Emerg Med* 1992;21:331–6.

Chua JD, Friedenberg WR. Superwarfarin poisoning. *Arch Intern Med* 1998;158:1929–32.

Bruno GR, Howland MA, McMeedking A, Hoffman RS. Long-acting anticoagulant overdose: Brodifacoum kinetics and optimal vitamin K dosing. *Ann Emerg Med* 2000;36:262–7.

Hollinger BR, Pastoor TP. Case management and plasma half-life in a case of brodifacoum poisoning. *Arch Intern Med* 1993;153:1925–8.

This fact sheet is based on CDC's best current information. It may be updated as new information becomes available.

For more information, visit www.bt.cdc.gov or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY)

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