



NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
Thomas Farley, M.D., M.P.H.
Commissioner

**2010 HEALTH ADVISORY # 14:
Possible Levamisole-induced Toxicity in Cocaine-using Patients**

Levamisole, a veterinary antihelmintic drug, has been identified as a common contaminant in cocaine. Health care providers should:

- **Ask about recent or chronic cocaine use. Inquire about mode and frequency of use.**
- **Recognize the signs and symptoms of possible levamisole-induced toxicity.**
- **Report all cases of cocaine-using patients who present with unexplained neutropenia or vasculitis to the Poison Control Center at 1-800-222-1222 or 212-764-7667 (POISONS).**

**Please Distribute to
All Clinical Staff in Emergency Medicine, Dermatology, Rheumatology, Primary Care,
Family Medicine, Internal Medicine, Immunology, Infectious Disease, et al.
Please also share with your non-hospital based colleagues.**

July 19, 2010

Dear Colleagues:

The Department of Health and Mental Hygiene has identified several possible cases of levamisole-induced immunosuppression in cocaine-using patients treated at local health care facilities in the past month. The Department is encouraging all medical providers to report cases of cocaine using patients who present with unexplained neutropenia or vasculitis to the Poison Control Center at 1-800-222-1222 or 212-764-7667 (POISONS).

Levamisole is an antihelmintic medication widely used in veterinary medicine, and has been identified both locally and nationally as a common contaminant in cocaine, and possibly in heroin. In New York City, we estimate between 5% and 30% of all cocaine is contaminated with levamisole.ⁱ

Clinical information:

- Levamisole is not FDA-approved for human use, and has been shown to cause neutropenia and vasculitis in humans.
- Levamisole consumption can cause agranulocytosis, with attendant immune suppression and susceptibility to infection.
- In addition to neutropenia and vasculitis, patients with suspected levamisole-induced toxicity may present with acute febrile illness, painful sores (oral, anal), purpuric lesions on face, ears, legs or thigh, and skin infections.

Medical providers should maintain a high index of suspicion when any of the above manifestations are identified in a patient who uses cocaine. For patients presenting

with unexplained vasculitis, manifesting as purpuric lesions on any area of the body, most characteristically on the ears, or with unexplained neutropenia, providers should:

- **Ask about recent or chronic cocaine use. Inquire about mode and frequency of use.**
- **Report all probable and suspected cases to the New York City Poison Control Center.**

Other causes of vasculitis or agranulocytosis, such as HIV or other immune disorders, should be ruled out.

Medical providers must report all suspected or confirmed cases of poisoning by drugs or other toxic agents within 24 hours. To report, call the Poison Control Center at 1-800-222-1222 or 212-764-7667 (POISONS) 24 hours a day/7days a week.

As always, we appreciate our ongoing partnership with NYC medical providers in reporting and investigating unusual disease manifestations or clusters.

Sincerely,

Daliah Heller

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ⁱ Estimation based on levamisole-cocaine prevalence in NYC OCME mortality review (2006-2008) and in NYC DEA cocaine exhibits (2006-2010).