

Health **FAX**

HEALTH WARNING: Agranulocytosis and Neutropenia in Crack or Cocaine Users

Attention: **Hospital Emergency Departments, Walk In Clinics, Community Health Centres**

Date: December 22, 2011

Toronto emergency department physicians continue to see cases of agranulocytosis, neutropenia, skin necrosis and vasculitis related to cocaine use. These illnesses are not due to the drug, but instead linked to an adulterant or cutting agent, levamisole, a known cause of agranulocytosis in susceptible individuals. Levamisole is a chemical compound used to treat intestinal worms in humans and animals. **We have heard from local harm reduction partners that crack and cocaine users in Simcoe County are experiencing related symptoms, suspected to be due to levamisole, and so we are sharing this for your information.**

Cases across North America have been found across all ages and both genders. Presentations include fever, opportunistic infections, and/or skin necrosis.

- In a cocaine user or suspected cocaine user, any symptoms of rapidly developing infection, including fevers, warrant an urgent CBC and differential to look for neutropenia.
- The neutropenia is acute and profound, commonly with a neutrophil count of zero. The total white blood cell count may only be slightly below normal as the lymphocytes and other white blood cells can be normal.
- Urine toxicology can be sent simultaneously looking for cocaine and levamisole. However, levamisole has a short detection “window” in urine (specimen should be collected within 24h of last use).

Neutrophil count generally recovers within 10 days after cocaine use is discontinued.

A large percentage of cocaine coming into North America continues to be cut with levamisole. It is unknown why some people have severe reactions to this drug, while others do not.

If clinicians become aware of or suspect any cases of this reaction in Simcoe Muskoka, public health would appreciate being notified, particularly with the presenting signs and symptoms. Please contact the Simcoe Muskoka District Health Unit Sexual Health Phone Line at 705-721-7520 or 1-877-721-7520

More information, including case reports, is available at the following links:

- Annals of Internal Medicine: Bilateral necrosis of earlobes and cheeks
<http://www.annals.org/content/152/11/758.extract>
- CMAJ – Cocaine adulterant linked to neutropenia
http://www.cmaj.ca/cgi/rapidpdf/cmaj.090286v1?ijkey=14ed06152bb0507096eb4a029e6ee0c8c7bb2ab&keytype2=tf_ipsecsha
- British Columbia study of genetic markers in agranulocytosis caused by levamisole-contaminated cocaine:
<http://www.bccdc.ca/prevention/HarmReduction/Agranulocytosis+Associated+with+Levamisole+in+Cocaine/default.htm>