

January 27, 2009

Dear Colleague:

**Re: Update: Neutropenia and adulterated cocaine use**

This message is an update to the alert sent on November 21, 2008, (<http://www.capitalhealth.ca/EspecialyFor/HealthProfessionals/default.htm> titled "[Agranulocytosis Related to Cocaine Adulterated with Levamisole](#)").

In November 2008, Public Health in Edmonton and area became aware of cases of neutropenia that appear to be related to cocaine use. The neutropenia is thought to be due to the cocaine adulterant or cutting agent called levamisole; a known cause of neutropenia in susceptible individuals.

As of today, 12 cases of neutropenia related to cocaine and levamisole have been reported to us (7 confirmed; 5 probable). Most recent cases presented on January 9, 2009 in Calgary. Details of the cases included:

- Predominantly female: 67% females, 33% males
- Onset dates:
  - Confirmed cases: August 8, 2008 – January 9, 2009
  - Probable cases: April 12, 2007 – November 10, 2008
- Ages range from 18 to 54 years (average = 39.6 years, median = 42.5 years)
- Location of cases: Edmonton, Calgary, Grand Prairie, Caslan, Stony Plain, Blackfalds, and Cardston
- Type of cocaine used: 7 (58%) cases used crack, 5 unknown
- Method of cocaine use: 7 (58%) cases smoked cocaine, 5 unknown

The neutropenia is acute and profound, commonly with a neutrophil count of zero. The total white blood cell count may also be below normal.

Advice to clients at risk should include a warning that the cocaine being sold is potentially cut with a dangerous substance that could harm their immune systems. **They should seek medical attention rapidly if they develop a fever over 38°C or have any signs of infection.** Also any skin, abscess or lung infections that appear to be developing more rapidly or are progressing more seriously may indicate an underlying acute immunodeficiency and require even more immediate treatment than usual.

For clients presenting with symptoms suggestive of adulterated cocaine exposure, refer to the attached, "**Neutropenia related to levamisole adulterated cocaine: QUICK RESPONSE SHEET**" and contact public health. Public Health contact: Lewinda Knowles, telephone: 780-413-7740, email: [Lewinda.Knowles@capitalhealth.ca](mailto:Lewinda.Knowles@capitalhealth.ca).

Thank-you for your co-operation in this matter.

Sincerely,

*(Original Signed)*  
James Talbot, MD, PhD, SCCM, FRCP(C)  
Associate Medical Officer of Health  
Alberta Health Services-Capital Health

Lewinda Knowles  
Epidemiologist

