

Summary and Action Items

- 1) To alert clinicians to recently reported cases of profound methemoglobinemia secondary to Sodium Nitrite Ingestion
- 2) Provide information on treatment resources and recommendations

Background

In a ten-day period, three patients with extremely elevated methemoglobin levels have been reported to the Illinois Poison Center. Two of the three patients expired. Two of the individuals are suspected intentional ingestions of sodium nitrite by history, and the third case is consistent by clinical presentation with a sodium nitrite ingestion.

Concurrently, a spike in suicidal sodium nitrite ingestions is being reported by poison centers in various areas around the country.

Potential Exposures and Transmission

Web sites that refer to suicide recipes have mentioned sodium nitrite ingestion as a successful method of self-harm. The compound can be made at home or purchased in bulk from online retailers such as eBay or Amazon.

Symptoms

Presenting symptoms of the above patients included profound cyanosis, shortness of breath and hypotension. Dizziness, confusion, nausea and vomiting may also be seen. Pulse oximetry readings generally do not improve with increased supplemental oxygen. Venous blood when drawn will have a characteristic 'chocolate brown' color. Methemoglobinemia is suggested when there is clinical cyanosis in the presence of a normal arterial pO₂ (P_aO₂).

Treatment

The antidote for this poisoning is intravenous methylene blue and was successful in the resuscitation of one of the recent cases with a level that would have otherwise likely have been fatal if left untreated.

Recommendations for healthcare facilities

Please contact the Illinois Poison Center at 1-800-222-1222 for treatment recommendations for patients presenting with severe methemoglobinemia, and to report cases for public health monitoring. Further acute clinical guidance from the Illinois Poison Center is attached to this alert

Prevention Resources

For a listing of suicide prevention resources, please visit [IDPH's Suicide Prevention Webpage](#).

Public Health Response

IDPH and the Illinois Poison Center will continue to monitor the situation, including analyzing data from Illinois hospital emergency departments and will issue new guidance as needed.

Target Audience

Hospital Emergency Departments, Urgent Care Clinicians, EMS Systems, Local Health Departments

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