

Preventive Health and Health Services Block Grant

SUCCESS STORY 2019

EMS Poison Control System

Investigation Uncovers Poisonous Skin Cream

Public Health Issue: In July 2019, a 47-year old woman in California began experiencing unusual symptoms. She was having speech difficulties, blurry vision, numbness, weakness, and lack of coordination. Over the course of several weeks, her symptoms worsened. When she could no longer walk, she was eventually admitted to the hospital. What was the cause? An extensive work up for potential infectious, autoimmune, oncologic, and neurodegenerative processes were all unrevealing as her condition continued to decline. A heavy metal screening revealed that she had extraordinarily high levels of mercury. Human exposure to mercury containing products can result in serious toxicity including kidney and permanent neurologic disability¹.

Intervention: The California Poison Control System (CPCS), designated and overseen by the California Emergency Medical Services Authority (EMSA), quickly became aware of this case and sprang into action to detect the source.

In conjunction with the California Department of Public Health (CDPH) and the Centers for Disease Control and Prevention (CDC), CPCS identified a skin lightening cream as the source of the patient's exposure. Analysis of the cream revealed that it contained high levels of organic mercury - the most toxic of all mercury compounds. While banned in the United States, mercury containing skin lightening creams are still available in many countries, and these skin products can make their way into California communities where outbreaks of poisoning can occur. This type of mercury had not been previously identified in other outbreaks related to skin lightening creams. Further investigation determined that several of the patient's family members had also been exposed; however, they had not yet exhibited signs or symptoms of toxicity.

Impact: This incident highlights the vital role the CPCS plays in:

- Collaborating with local, state, and national public health agencies
- Assisting in identification of toxicologic outbreaks with potentially significant public health consequences
- Assisting in the identification and work up of unusual clinical presentations consistent with uncommon poisonings

- Assisting in the medical management of poisonings

The poison center's involvement helped trigger efforts by CDPH to pinpoint the source of the exposure and prompted the release of a formal health alert² and the development of an updated CDPH webpage³, to warn the community at large of the dangers associated with the use of non-commercial skin lightening creams.

Footnotes:

1. California Poison Control System [website] Thornton, S. (2011) Mercury
2. California Department of Public Health. Health Alert, Mercury Poisoning Linked to Use of Skin-Lightening Creams from Mexico (2019). Available at:
https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/EHIB/CPE/CDPH%20Document%20Library/Mercury%20in%20Skin%20Creams_HealthAlert%202019.pdf
3. California Department of Public Health. Environmental Health Investigations Branch [website] Updated on October 9, 2019. Available at:
<https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/EHIB/CPE/Pages/MercuryinSkinCream.aspx>