HEALTHCARE PROVIDER ENHANCED SURVEILLANCE & REPORTING DUE TO MICROCYSTIN TOXIN IDENTIFICATION IN AN IOWA LAKE

BACKGROUND:
Microcystin toxin (a hepatotoxin) is released by blue-green algae or cyanobacteria. Cyanobacterial blooms occur when algae that are normally present grow exuberantly. Within a few days, a bloom can cause clear water to become cloudy. The blooms usually float to the surface and can be many inches thick, especially near the shoreline. Cyanobacterial blooms can form in warm, slow-moving waters that are rich in nutrients from sources such as manure or fertilizer runoff or improperly treated septic wastes. Blooms can occur at any time, but most often occur in late summer or early fall.

Both humans and animals can get microcystin poisoning from exposure to contaminated water. People can get microcystin poisoning from being exposed to contaminated waters, either by intentionally or accidentally swallowing water, by having direct skin contact (as when swimming, wading, or showering), or by breathing airborne droplets containing microcystins, such as during boating or waterskiing. Microcystin poisoning cannot be spread from one person to another, nor from an animal to a person.

SURVEILLANCE:
The Iowa Department of Public Health (IDPH) and the IDNR are participating in a CDC surveillance project assessing the human and animal health risks associated with algal blooms. As a part of this surveillance program IDPH is asking both human and animal health providers to report suspected or confirmed cases of microcystin poisoning.

Symptoms may take hours or days to show up in people, but normally show up within one week after exposure.

Symptoms of microcystin exposure/poisoning include

- Rash, hives, or skin blisters (especially on the lips and under swimsuits).
- Gastrointestinal symptoms such as stomach pain, nausea, vomiting, diarrhea, severe headaches, and fever.
- Runny eyes and nose, cough, and sore throat, pleuritic pain, asthma-like symptoms, or allergic reactions.
- Exposure to large amount of microcystin can cause liver damage (elevated gamma glutamyl transpeptidase).

Treatment for microcystin poisoning is supportive as there is no specific treatment.

IDPH is specifically asking health care providers to report cases that meet the following criteria:

- **Gastrointestinal symptoms OR**
- **Respiratory symptoms OR**
- **Dermal symptoms OR**
- **Elevated serum GGT (gamma glutamyl transpeptidase)**

- **AND history of exposure to a water body with algal blooms within the past 7 days.**

How to report:
To report cases, please call the Iowa Department of Public Health at (800) 972-2026. Note this line is only staffed during business hours. If you call after hours, please leave a message and your call will be returned the next business day.

What to report:

Health care provider's name
Health care provider's number
Patient name
Patient phone number
Patient address

Upon receipt of this information IDPH will contact the patient directly to learn more about the exposure.

The Director of the Iowa Department of Public Health has designated suspected or confirmed cases of exposure to microcystin as a reportable disease in Iowa until October 31st

More information on Harmful algal blooms can be found at:

- Iowa Department of Public Health: http://www.idph.state.ia.us/eh/algal_blooms.asp
- Centers for Disease Control: http://www.cdc.gov/hab/default.htm

For questions, please contact Stuart Schmitz, State Toxicologist, at 515-281-8707 or Randy Lane at 515-281-5894