



**MLS: Laboratory Update**  
**Unusual Cluster of Group A Streptococcus Being Investigated**  
**March 5, 2010**

**Purpose of this Message**

This is a notice about a recent, unusual cluster of infections involving a highly resistant strain of group A *Streptococcus* (GAS). A similar message went out yesterday to hospital infectious disease doctors and infection preventionists.

**Background**

The Minnesota Department of Health (MDH) conducts active, laboratory-based surveillance for invasive infections due to GAS, including antimicrobial susceptibility testing of isolates by the MDH Public Health Laboratory (MDH-PHL) that are submitted by clinical laboratories. It was noted that 3 GAS isolates from September and December 2009 exhibited the same unusual multidrug resistance pattern (resistant to erythromycin, clindamycin, and tetracycline, and a high MIC to telithromycin. No breakpoints have been established for telithromycin but all 3 isolates had MICs greater than 4 mcg/ml.) Each patient had invasive disease, but for 2 of 3, soft tissue involvement occurred initially.

The 3 isolates were subtyped by pulsed-field gel electrophoresis (PFGE). All 3 isolates had similar PFGE patterns that were distinct from historic GAS PFGE patterns. Upon further investigation, it was determined that all 3 case patients were men who have sex with men (MSM) and 2 were methamphetamine users (1 was known to use IV drugs).

Because invasive cases of GAS in a particular setting may represent only a small component of GAS disease, including non-invasive disease, we ask you to be alert to potential additional cases of GAS infection among patients who are MSM or using methamphetamine or IV drugs. In addition, the 3 invasive isolates were resistant to erythromycin and clindamycin, antibiotics that may be used to treat GAS, and tetracycline which may be used empirically in skin and soft tissue infections when CA-MRSA is considered. The isolates were susceptible to penicillin.

**Please send isolates from patients that may represent this cluster type**

Although only invasive GAS is required to be reported to MDH and isolates submitted to MDH-PHL, we are interested in obtaining isolates that are available from skin and soft tissue infections or pharyngitis (if possible) in patients who may be MSM or IV drug users. We understand that this may be difficult to ascertain from the laboratory stand-point, but we hope that you will collaborate with clinicians and infection preventionists to help identify these unusual cases. This will help MDH better understand the scope of a possible GAS outbreak, and determine whether ongoing transmission of this strain is occurring.

**Questions**

For epidemiology questions and further information, please contact Sarah Klawitter, MPH, at 651-201-5078. For laboratory related questions, please contact Billie Juni, PHL Clinical Laboratory Supervisor, at 651-201-5035.

Thank you for assisting MDH in this outbreak investigation.

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This is an update from the Minnesota Department of Health – Public Health Laboratory (MDH-PHL) and the Minnesota Laboratory System (MLS). This message is being sent to MLS laboratory contacts serving Minnesota residents. You are not required to reply to this message.

**\*\*Please forward this to all appropriate personnel within your institution and Health System\*\***

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