



August 12, 2016

Robert Tauxe, MD MPH
Director, Division of Foodborne, Waterborne, and Environmental Diseases
National Center for Emerging Zoonotic and Infectious Diseases
Centers for Disease Control and Prevention
1600 Clifton Road, MS C-09
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Dear Dr. Tauxe:

On July 27, 2016, the South Carolina Department of Health and Environmental Control notified the Centers for Disease Control and Prevention (CDC) of a cluster of illnesses with isolates matching a rare, emerging strain of *Salmonella* Infantis, defined by the PFGE pattern JFXX01.0787. *Salmonella* Infantis is known to cause long-term, asymptomatic infections. It also causes more severe infections than other common *Salmonella* serotypes.

The South Carolina cluster includes four isolates that matched a multistate outbreak strain that CDC is currently investigating. The four isolates were from inmates in a county detention center that reported 131 cases of gastrointestinal illness. Illness onset began on July 12, with the majority of cases reporting within 24 hours. The source of the infection among this cluster is currently unknown.

This *Salmonella* Infantis strain is of particular public health interest because previous isolates matching this PFGE pattern have been found to contain a large, mobile plasmid containing a CTX-M-65 type extended-spectrum beta-lactamase, as well as resistance to 9-10 other drugs. Together, this strain has been resistant to: ampicillin, ceftriaxone, chloramphenicol, sulfisoxazole, tetracycline, nalidixic acid, and trimethoprim/sulfamethoxazole; had intermediate susceptibility to ciprofloxacin and gentamicin; and is associated with more severe illness.

Phylogenetic analysis revealed that clinical isolates from this cluster group closely with the previous isolates characterized, as well as a CTX-M-65-positive isolate from retail chicken. This evidence indicates infections may be associated with consumption of domestically-produced chicken meat. Due to frequent association of this strain with a clinically important multidrug resistance, the epidemic potential of the MDR plasmid, and the potential association with domestically-produced chicken, an urgent public health response is warranted.

We are requesting technical assistance from CDC to investigate the undetermined source for *Salmonella* Infantis among detention center inmates that might include a variety of activities not yet defined, all of which will remain under the direction and supervision of South Carolina Department of Health and Environmental Control. The South Carolina Department of Health and Environmental Control will retain ownership of all data collected.

Sincerely,



Virginie G. Daguise, PhD
Director, Bureau of Disease Control