

Emerging *E. coli* strain causes many antimicrobial-resistant infections in US

July 30 2010

A new, drug-resistant strain of *E. coli* is causing serious disease, according to a new study, now available online, in the Aug. 1, 2010, issue of *Clinical Infectious Diseases*.

The new strain, ST131, was a major cause of serious antimicrobial-resistant *E. coli* infections in the United States in 2007, researchers found.

This strain has been reported in multiple countries and encountered all over the United States. In the study, researchers analyzed resistant *E. coli* isolates collected during 2007 from hospitalized patients across the country. They identified 54 ST131 isolates, which accounted for 67 percent to 69 percent of *E. coli* isolates exhibiting fluoroquinolone or extended-spectrum cephalosporin resistance.

"If we could discover the sources of this strain, the transmission pathways that allow it to spread so effectively, and the factors that have led to its rapid emergence, we could find ways to intervene and possibly slow or halt this strain's emergence," said study author James Johnson, MD, of the VA Medical Center in Minneapolis.

In the past, highly virulent *E. coli* [strains](#) usually have been susceptible to [antibiotics](#), while highly resistant strains have been fairly weak in terms of their ability to cause disease. The susceptible strains were easily treated even though they caused serious infections, while the resistant ones tended mostly to affect only weakened or vulnerable individuals.

Now, the study's findings suggest, the ST131 strain has appeared with a high level of virulence and antimicrobial resistance.

"If this strain gains one additional [resistance gene](#)," Dr. Johnson added, "it will become almost untreatable and will be a true [superbug](#), which is a very concerning scenario."

Provided by Infectious Diseases Society of America

Citation: Emerging E. coli strain causes many antimicrobial-resistant infections in US (2010, July 30) retrieved 9 April 2024 from <https://medicalxpress.com/news/2010-07-emerging-coli-strain-antimicrobial-resistant-infections.html>

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