Could Widely Used Rapid Influenza Tests Pose A Dangerous Public Health Risk?

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(PhysOrg.com) -- Rapid influenza diagnostic tests used in doctors' offices, hospitals and medical laboratories to detect H1N1 are virtually useless and could pose a significant danger to public health, according to a Loyola University Medical Center researcher.

"At Loyola, we determined four years ago that the rapid tests for influenza detected only 50 percent of the patients who were positive," said Paul Schreckenberger, Ph.D., director of Loyola's clinical microbiology laboratory. "I can flip a coin and get the same results as I could with those tests. So what's the value of the tests? I can flip a coin for free."

Schreckenberger said use of the tests could delay effective treatment with antiviral medication for critical hours for a large number of high-risk patients who registered a false negative with the rapid tests. The tests can generate results in a half-hour or less and are available for purchase on the Internet in prices ranging from $20 to $299.

"People who actually are infected with H1N1 are being sent home without treatment. Those in high-risk groups could face serious illness," Schreckenberger said. "As for the others: maybe they go back to work; maybe the children go back to school and infect others."

Studies published recently in prominent medical journals back up Schreckenberger's assertion. One study published in The New England Journal of Medicine concludes that that one test generated a false

negative 49 percent of the time, meaning it detected H1N1 only 51 percent of the time. Another study published in the Journal of Clinical Virology found another test generated a false negative 82.2 percent of the time, detecting H1N1 only 17.2 percent of the time.

A study in Emerging Infectious Diseases, published by the Centers for Disease Control (CDC), found that a test generated a false negative 88.9 of the time, detecting H1N1 only 11.1 percent of the time. The agency's Web site features data that coincides with the findings of its journal.

“The effectiveness of these test is not acceptable and reporting false results is a public health hazard,” said Schreckenberger, who is also professor of pathology, Loyola University Chicago Stritch School of Medicine. “Our government agency, the CDC, is publishing data that proves that these kits don't work. That’s a big concern to me.”

Loyola utilizes a molecular-based test that detects 98 percent of people who are positive for influenza, Schreckenberger said. The test has a 24-hour turnaround time. However, about 90 percent of all hospital labs in Chicago and across the United States use rapid tests to confirm a diagnosis. Some hospitals use the rapid tests but will double check all negatives with a more accurate test.

“It’s not the physicians. They believe the results just like they believe any lab results. It’s the laboratories. They should be telling physicians who order these rapid tests, ‘I’m sorry. We don’t do them. They don’t work. We can offer you these other alternatives,’” Schreckenberger said.

The tests are so inaccurate that physicians are being told by public health officials that they should consider anyone exhibiting flu-like symptoms as infected with H1N1 and then care for them accordingly, Schreckenberger said. Also, public health agencies have begun tracking people with flu-like symptoms instead of cases confirmed by the rapid

tests because they know the tests are unreliable.

“If these kits do not work, then why do 90% of the hospital laboratories still perform them on their patients? False negative test results can only lead to a bad outcome and puts a huge financial burden on the health care payers.” Schreckenberger said.

Provided by Loyola University Health System (news : web)