Triple-combo drug shows promise against antiviral-resistant H1N1, researcher says (w/ Video)

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An experimental drug cocktail that includes three prescriptions now widely available offers the best hope in developing a single agent to treat drug-resistant H1N1 swine flu, says a virology researcher in the University of Alabama Birmingham (UAB) Division of Pediatric Infectious Diseases.

In laboratory testing, the triple combination of oseltamivir (Tamiflu), amantadine (Symmetrel) and ribavirin showed a significant capacity to stop flu-virus growth, says Mark Prichard, Ph.D, who serves on the board of directors of the International Society for Antiviral Research. The combo drug works better in the test tube than currently recommended single or double antiviral therapies used to treat both seasonal and swine flu strains, he says.

Prichard presented his data in September at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy held in San Francisco. The triple-combo testing is led by Adamas Pharmaceuticals, Inc. based in Emeryville, California.

"These findings suggest strongly that the triple combo is highly synergistic against virus replication, meaning it strikes multiple targets within H1N1 flu and other strains," Prichard says. "Only human testing will determine for sure, but this combo has the potential to be the antiviral therapy of choice for serious flu infection and to address

Tamiflu resistance."

The synergy was seen in swine flu and seasonal flu strains, as well as H3N2 seasonal flu and the highly pathogenic H5N1 avian influenza strain, Prichard says. The dosing and timing of the combo mixture is protected information by Adamas. The company is starting human testing in the Southern Hemisphere, and has plans to begin human testing in North America once approval is obtained.

Because flu infection typically lasts for shorter periods of time than many other chronic infections, the three-pronged antiviral approach means the circulating strains of flu virus may not have time to develop resistance to the combo, Prichard says. "That's why this research is so timely, and why antiviral safety and testing data is crucial.

"If this triple combo could reduce the impact to families and the healthcare system that comes from serious flu cases, we would be thrilled."

Source: University of Alabama at Birmingham (news : web)