McMaster test detects the most prevalent respiratory viruses

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Diagnosing a nasty cough is now a lot easier thanks to a new test developed at McMaster University, which has just been approved by U.S. Food and Drug Administration (FDA) for use in the United States.

This new test simultaneously detects the most prevalent respiratory viruses, including flu and the common cold, helping doctors more accurately diagnose patients. It was developed by McMaster virologist Dr. James Mahony, in conjunction with Luminex Molecular Diagnostics (formerly TM Biosciences).

The xTAG™ Respiratory Viral Panel can detect most common respiratory viruses in a few hours. Traditional testing for this many viruses requires multiple individual diagnostic tests to be performed on a patient sample and can take several days to provide a thorough diagnosis. The speed and reliability of xTAG™ RVP will help physicians provide appropriate treatment, and prevent inappropriate antibiotic use that has contributed to the creation of "superbugs."

"Respiratory viruses affect millions of people each year and can lead to serious complications such as bacterial super infections and pneumonia. The RVP test allows healthcare providers to more rapidly and accurately detect infected patients and take appropriate measures to treat and reduce the spread of the disease," said Mahony, who is the director of the McMaster University Regional Virology and Chlamydiology Laboratory at St. Joseph's Healthcare Hamilton and is a professor in the Department of Pathology and Molecular Medicine at McMaster.

The FDA approval allows U.S. laboratories to use the test to simultaneously detect and identify 12 viruses and viral subtypes that together are responsible for more than 85 percent of respiratory viral infections, including influenza A, influenza A-H1, influenza A-H3, influenza B, Adenovirus, respiratory syncytial virus (RSV) A and B, metapneumovirus, parainfluenza 1, 2, and 3, and rhinovirus.

The test is also CE ("Conformité Européenne") certified to detect and identify 20 viruses and viral subtypes in Europe, adding eight viruses and subtypes including SARS and influenza A H5 (the subtype associated with avian influenza). Luminex is currently working to get the panel certified for patient use in Canada, although it is already available for investigational use.

Development of the xTAG™ Respiratory Viral Panel began in May 2005, when the company signed an agreement with McMaster to collaborate on the development of the test panel. After the prototype was created and validated at McMaster in Mahony's lab based t St. Joseph's Healthcare, the panel was further developed and commercially launched by Luminex.

"It's rewarding to see a McMaster technology enter the marketplace in a way that will directly improve the treatment of patients," Elsie Quaite-Randall, executive director of the McMaster Industry Liaison Office (MILO). "This is a great example of a win-win collaboration that transformed great research into a product that benefits patients."

Source: McMaster University