

Rapid flu testing

29 December 2009

Researchers from the Medical College of Wisconsin, the Children's Research Institute, and the Children's Hospital of Wisconsin have developed a rapid, automated system to differentiate strains of influenza. The related report by Beck et al, "Development of a rapid automated influenza A, influenza B, and RSV A/B multiplex real-time RT-PCR assay and its use during the 2009 H1N1 swine-origin influenza virus (S-OIV) epidemic in Milwaukee, Wisconsin," appears in the January 2010 issue of the *Journal of Molecular Diagnostics*.

In pandemic infection, such as the present H1N1 [influenza outbreak](#), rapid automated tests are needed in order to make quick and effective public health decisions. Real-time reverse transcriptase [polymerase chain reaction](#) (real-time RT-PCR) is a sensitive and specific method for identifying flu substrains; however, technician and assay time are significantly longer than less accurate rapid [influenza](#) diagnostic tests.

A group led by Dr. Kelly J. Henrickson of the Medical College of Wisconsin have developed rapid semi- and fully-automated multiplex real-time RT-PCR assays to detect influenza A, influenza B, and respiratory syncytial virus (RSV). These assays can successfully detect human H1N1, H3N2, and swine-origin H1N1 viruses as well as distinguish these from influenza B and RSV infections. These assays could test large numbers of samples over a very short time, allowing for a significant decrease in both technician and assay time.

Beck et al suggest that "this outbreak demonstrates the importance of having rapid, reliable, sensitive, and specific assays that allow clinicians and public health officials to react quickly and effectively during viral outbreaks."

More information: Beck, ET, Jurgens LA, Kehl SC, Bose ME, Patitucci T, LaGue E, Darga, P, Wilkinson K, Witt LM, Fan J, He J, Kumar S, Henrickson KJ: Development of a rapid automated

influenza A, influenza B, and RSV A/B multiplex real-time RT-PCR assay and its use during the 2009 H1N1 swine-origin influenza virus (S-OIV) epidemic in Milwaukee, Wisconsin. *J Mol Diagn* 2010, 12:74-81

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