

Rapid testing to diagnose influenza leads to more appropriate care in the ED

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When patients in the emergency department (ED) are diagnosed with influenza by means of a rapid test, they get fewer unnecessary antibiotics, are prescribed antiviral medications more frequently, and have fewer additional lab tests compared to patients diagnosed with influenza without testing, according to a new study. Published online in the *Journal of the Pediatrics Infectious Diseases Society*, the findings suggest that diagnosing influenza with a rapid diagnostic test leads to more appropriate, specific, and efficient care.

In the study, researchers used data from the National Hospital Ambulatory Medical Care Survey, a nationally representative sample of ED visits in the U.S. They identified children and adults across three influenza seasons (2007-2009) who were diagnosed with influenza in the ED. They looked at how the patients were diagnosed—either with the use of a rapid influenza test or without it—and the subsequent care they received.

Among patients diagnosed with influenza without rapid testing, 23 percent of the ED visits included a prescription for antibiotics, which are not effective in treating influenza, a viral infection. However, for patients who were diagnosed by rapid testing, only 11 percent of ED visits resulted in the patient getting antibiotics. Additional laboratory tests, including chest X-rays, blood tests, and urinalysis, were also ordered less frequently for patients whose influenza illness was diagnosed with a [rapid test](#).

Notably, prescriptions for antiviral drugs, which can be effective in treating influenza when used early and appropriately, were more frequent (56 percent of ED visits) among patients diagnosed with influenza using a rapid test, compared to antiviral use among influenza patients diagnosed without testing (19 percent of ED visits).

"When results of influenza tests are available to physicians at the 'point of care,' they use this information to provide more appropriate patient management," said lead study author Anne J. Blaschke, MD, PhD, of the University of Utah School of Medicine. "While other studies have shown that physicians can accurately diagnose influenza without testing, our results suggest that using an influenza [test](#) increases diagnostic certainty and leads to the physician providing more specific and appropriate care."

The study suggests a significant impact from rapid influenza testing on physician decision making, [patient care](#), and use of health care resources, the authors wrote, despite the limited sensitivity of currently available rapid tests, which miss a number of true cases of influenza. The development of more accurate and faster tests for influenza available at the bedside could further improve care for patients with influenza or other respiratory illness, they noted.

The researchers' findings build on previous studies by others, focused primarily on children, that found that rapid [influenza](#) testing can influence patient care in specific settings. This latest study breaks new ground, Dr. Blaschke said, by using nationwide data and by demonstrating that the findings apply to both adults and children, and across different practice types.

Provided by Pediatric Infectious Diseases Society

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