



RESPIRATORY VIRUSES UPDATE

Before influenza and other respiratory viruses descend upon us, **ChildLab** would like to provide you with the diagnostic options that are now available.

TESTING FOR RESPIRATORY VIRUS INFECTION

There may be times when it is important to detect RSV or other respiratory viruses in the outpatient setting. In this case, we recommend a posterior nasopharyngeal (NP) swab collection and an order a **Respiratory Viruses Antigen** test by the direct fluorescent antibody (DFA) technique to detect RSV, Influenza A/B, Parainfluenza 1, 2, 3, Adenovirus and Human Metapneumovirus.

In this test, specific viruses are detected by first staining the infected respiratory epithelial cells from the patient with a fluorescent-labeled antibody to the virus(es) and then viewing the stained cells under the microscope for specific fluorescence. Thus, it is important that the NP swab collection be done properly to ensure collection of an adequate number of respiratory cells for staining. After collection, the NP swab tip is cut off into M-4 viral transport medium and transported to the Lab. Viral DFA/culture collection kits with swabs, M-4 transport medium, and instructions are available by calling **ChildLab** Client Services. DFA testing for RSV and other the respiratory viruses is offered 7 days a week during dayshift, and the expected turnaround time for DFA testing is < 24 hours. DFA shows significant improvement in sensitivity for detection of RSV and influenza compared to rapid point of care tests available for these agents.

<u>Test</u>	<u>Virus</u>	<u>Approx. Test Sensitivity (%)</u>
DFA	RSV	95
	Influenza A/B	85
	Parainfluenza 1, 2, 3	80
	Adenovirus	70
	Human Metapneumovirus	65

INFLUENZA RAPID DIAGNOSTICS

ChildLab offers **rapid influenza** virus protein antigen testing on anterior nares secretions using the Quidel QuickVue test for influenza A and B at the Nationwide Children's Close-to-Home Centers with Urgent Cares services in the Columbus area (Westerville, Dublin, East Broad). A physician seeing a patient in the office could collect the specimen and then have the specimen delivered by the parent or guardian to one of the three Close-to-Home Centers with a written order for STAT flu testing and with the name and phone number to whom the result should be called. The specimen will be tested by a laboratory technologist and the result

(positive or negative) phoned within 1/2 hr of the time the specimen was dropped off. The patient will only be charged for the rapid flu analysis. The specimen could also be held in the physician's office and sent via the routine courier service to **ChildLab** for testing, however, the test turnaround time would be significantly greater. It is important to note that the private practice physician must collect the specimen at the time of the office visit – specimens cannot be collected by lab technologists at the Close-to-Home sites. This service will only be available during open laboratory hours at the Nationwide Children's Close-to-Home Centers with Urgent Care services.

ChildLab provides special absorbent foam swabs designed to collect anterior nares specimens for rapid flu testing that must be used. The swab should be removed from the plastic holder and inserted into the nostril that presents the most secretions under visual inspection. Insert the swab until resistance is met at the level of the turbinates (< 1 inch into the nostril), rotate the swab a few times making contact with the nasal wall and remove while rotating. Place the swab back into the plastic holder and label with the patient's name and MR# or birth date. Keep in mind that the only test that can be performed on this special foam swab is the rapid flu test. Assuming adequate secretions have been collected, the sensitivity of this test using an anterior nares swab specimen collection is about 70%.

For More Information:

For questions regarding test availability, specimen requirements, or to order swabs and Viral DFA/culture collection kits, please contact **ChildLab** Client Services at (614)722-5477 or (800)934-6575. You may also visit our website at www.ChildLab.com