



From the Department of Laboratory Medicine - Yale-New Haven Hospital Medical Center

Clinical Virology Laboratory Newsletter

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YNHH Respiratory Virus Testing Guidelines 2013-14

Guidelines for testing: Laboratory testing should be considered if the patient has clinical signs and symptoms compatible with influenza or other respiratory virus infection and [results of testing will change the clinical care of the patient or influence the clinical practice for other patients](#). For CDC guidelines, see: <http://www.cdc.gov/flu/professionals/diagnosis/index.htm>

Potential utility of testing:

<ul style="list-style-type: none"> • Bed allocation (multi-bed rooms) • Infection control measures (inpatients) • Discontinue or withhold antibiotics • Diagnose and manage lower respiratory tract disease 	<ul style="list-style-type: none"> • Reduce other diagnostic testing • Allow earlier discharge • Administer antivirals, including for immunocompromised or severely ill patients with non-influenza virus infections.
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Tests Performed: Choice of test depends on clinical need (speed vs. sensitivity). **Compared to PCR, rapid flu tests detect 20-50% and DFA detects 50-80% of PCR-positives.** [DFA and PCR are available only during Virology Laboratory operating hours.](#)

Tests available	Viruses detected	Indication	Result	Availability
Respiratory Virus PCR Panel	RSV, Flu A, Flu B, Parainfluenza 1,2,3, Adenovirus, HMPV, Rhinovirus	When most sensitive result is needed for inpatient management	5-24 hrs	Once a day in AM, with results by early afternoon During peak periods 2 or even 3 PCR runs/day will be done on weekdays if staffing permits
Respiratory virus screen DFA Human metapneumovirus DFA	RSV, Flu A, Flu B, Parainfluenza 1,2,3, Adenovirus HMPV	When 2 hr result needed for bed assignment	2-3 hrs (When Virology open)	When Virology is open, until 2 hrs before closing: Weekdays 7 AM- 11 PM Weekends & holidays: 8 AM – 3 PM (Apr-Nov) 8 AM – 10:30 PM (mid Dec-Feb/Mar)
Rapid flu tests (RIDT)	Flu A and B	York St.: When Virology Lab closed SRC and SMC: Rapid result on site	1 hr	York St. Chemistry Lab: When Virology Lab closed. For use by Adult ED to aid bed allocation for new admissions. SRC Lab: Test done on site 24/7 Shoreline Med Ctr Lab: Test done on site 24/7

DFA= direct fluorescent antibody staining of respiratory epithelial cells affixed to glass slides and examined using IF microscopy

Samples to collect: Nasopharyngeal swab (*inserted deep into nasopharynx to collect respiratory epithelial cells*), and placed in viral transport medium; or NP wash or NP aspirate in a sterile container. For lower tract disease, submit endotracheal aspirate, BAL or lung tissue. For rapid flu tests, follow the kit manufacturer’s instructions.

Treatment of Influenza:

Antiviral therapy should be initiated as soon as possible, and is recommended for patients who are hospitalized or at high risk for influenza complications. When suspicion is high and therapy is indicated, *treatment of influenza should not be delayed while awaiting results of diagnostic testing.* <http://www.cdc.gov/flu/professionals/antivirals/antiviral-use-influenza.htm>

Virology Laboratory Hours of Operation:

Monday- Friday: 7 AM to 1 AM

Saturday & Sunday: 8 AM-4:30 PM. Beginning December 7, hours will be extended until 12:30 AM, to provide testing to aid bed allocation and patient management during peak respiratory season.

For questions, contact Marie L. Landry, MD (marie.landry@yale.edu) or David Ferguson (david.ferguson@ynhh.org), or the Virology Laboratory at 203-688-3524.

References

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