

# DYNACARE LABORATORIES

Affiliated With  Froedtert & Medical College of Wisconsin

## RESPIRATORY VIRUS SEASON TESTING - 2010

### NEW THIS YEAR: HUMAN METAPNEUMOVIRUS (hMPV)

Fall marks the beginning of the respiratory virus season. The following tests are available at Dynacare Laboratories for timely respiratory virus testing. Testing will be performed at least three times per week using Real Time Polymerase Chain Reaction (PCR) technology. Please note that as demand increases, testing schedules may be adjusted to ensure appropriate turnaround time.

#### **COMBINATION TESTS:**

##### **Respiratory Virus NAAT**

- Includes Influenza virus A & B, Respiratory Syncytial virus (RSV), or Parainfluenza virus 1, 2, or 3.
- This combination is often appropriate for patients with a compromised immune system.

##### **Influenza A/B and Respiratory Syncytial Virus (RSV) NAAT**

- Includes Influenza A & B and RSV.
- In pediatric or elderly patients, RSV infections can resemble infections with Influenza. This combination test can be used to rule out both viruses.

#### **SINGLE TESTS:**

##### **Influenza A & B NAAT with Influenza A Subtyping**

- While every flu season is unpredictable, it is likely that the 2009 H1N1 virus and regular seasonal viruses will cause illness in the U.S. during this year's flu season. Influenza A viruses will be further tested to determine the subtype unless otherwise requested (See Influenza A & B NAAT without Subtyping).

##### **RSV NAAT**

- RSV is a common cause of lower respiratory tract infections in infants under 1 year. Elderly patients, patients with chronic heart or lung conditions, or those with weakened immune systems due to other medical conditions are also at risk for severe disease.

##### **Parainfluenza 1, 2, 3 NAAT**

- Parainfluenza virus is second to RSV as common cause of lower respiratory infections in infants. Like RSV, Parainfluenza also infects the elderly and those patients with weakened immune systems. Parainfluenza 1, and to a lesser degree Parainfluenza 2, is the leading cause of croup in children.

##### **Human metapneumovirus (hMPV) NAAT**

- Human metapneumovirus (HMPV) was first identified in 2001 in samples from children with respiratory tract diseases (1). Subsequent studies showed that the virus is responsible worldwide for a proportion of community-acquired acute respiratory tract infections in children (2–4), as well as other age groups (5–9). Co-infection of HMPV with RSV in infants has been suggested to be a factor that influences the severity of bronchiolitis.

#### **For questions or additional information, please call:**

- Dr. Nathan Ledebor, Director, Microbiology and Molecular Diagnostics (414-805-7556)
- Kristina Georgakas, Manager, Microbiology and Molecular Diagnostics (414-805-7558)

\*\*\*PLEASE REFER TO THE ATTACHED TABLE FOR ADDITIONAL INFORMATION\*\*\*

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## RESPIRATORY VIRUS TESTING

TEST	MNEMONIC TEST CODE	CPT CODE	VIRUSES DETECTED	SENSITIVITY
Respiratory Virus Nucleic Acid Amplified Test (NAAT) <sup>1</sup>	V RESPNAAT 6750009	87798 x 6	<ul style="list-style-type: none"> <li>Influenza A &amp; B<sup>2</sup></li> <li>RSV</li> <li>Parainfluenza 1,2,3</li> </ul>	95-99%
Influenza A&B and Respiratory syncytial virus (RSV) NAAT	V FLURSV NAAT 6750012	87798 x 3	<ul style="list-style-type: none"> <li>Influenza A &amp; B<sup>2</sup></li> <li>RSV</li> </ul>	96-99%
Influenza A&B NAAT <sup>2</sup>	V FLU NAAT 6750010	87798 x 2 (87798 x 4 if positive for Influenza A)	<ul style="list-style-type: none"> <li>Influenza A &amp; B<sup>2</sup></li> </ul>	96-99%
Influenza A&B without Subtyping NAAT	V FLU NOTYPE 6750054	87798 x 2	<ul style="list-style-type: none"> <li>Influenza A &amp; B</li> </ul>	96-99%
Influenza A Subtyping NAAT	V FLUA SUBTYPE 6750050	87798 x 2	<ul style="list-style-type: none"> <li>Influenza A 2009 H1N1</li> <li>Influenza A H1</li> <li>Influenza A H3</li> </ul>	95-99%
RSV NAAT	V RSV NAAT 6750011	87798	<ul style="list-style-type: none"> <li>Respiratory syncytial virus</li> </ul>	99%
Parainfluenza 1,2,3 NAAT	V PARA NAAT 6750036	87798 x 3	<ul style="list-style-type: none"> <li>Parainfluenza virus 1, 2, and 3</li> </ul>	95-99%
Human metapneumovirus (hMPV) NAAT	HMPV NAAT 7000045	87798	<ul style="list-style-type: none"> <li>Human metapneumovirus</li> </ul>	98%

<sup>1</sup>NAAT testing is performed using Real-Time Polymerase Chain Reaction (PCR)

<sup>2</sup>Includes subtyping of Influenza A for H1-Swine Origin and H3-Human Origin

### ACCEPTABLE SPECIMEN TYPES<sup>3</sup>

- BAL
- Endotracheal aspirate
- Nasal aspirate
- Nasopharyngeal swab
- Sputum
- Throat swab

<sup>3</sup>Per CDC recommendations, collect both a Nasopharyngeal and a Throat swab and submit both in the same tube of Viral Transport Medium

#### RECOMMENDED SPECIMEN TRANSPORT

- M-4 Viral Transport medium\*
- M-6 Viral Transport medium\*
- M-4RT Viral Transport medium
- M-5 Viral Transport medium
- Sterile container (fluid specimens only)

Store and transport refrigerated

\*Preferred Transport provided by Dynacare Labs

#### ALTERNATE SPECIMEN TRANSPORT

(Use only if Viral Transport medium is not available)

- Liquid Stuart's Mini-tip (dark green cap)
- Liquid Amies Mini-tip (dark green cap)
- Liquid Amies swab (red cap dual swab)

Store and transport refrigerated