BD Respiratory Viral Panel

Innovation that simplifies. Clinical differentiation that counts.

The BD Respiratory Viral Panel for BD MAX™ System simultaneously detects and differentiates SARS-CoV-2, influenza A, influenza B, and/or respiratory syncytial virus.[1]

BD

The hidden burden of RSV

3.2 million
hospitalizations globally in children younger than 5 years[2]

118 200
deaths globally in children younger than 5 years[2]

41% to **70%**
of hospitalizations in adults with influenza-like illness caused by RSV[3]

In the U.S., RSV-related infection costs

>$100M
in elder adults and approximately

$500M
in children <2 years old[4]

RSV is increasingly recognized as an important public health concern.[4] Globally, RSV may be responsible for 3.2 million hospitalizations and 118 200 deaths in children younger than 5 years.[2]

It is the most frequent cause of bronchiolitis in infants[4,5] and is responsible for more respiratory complications and casualties than COVID-19 or flu in children.[6,7]

RSV also exacerbates pre-existing respiratory conditions in adults and may cause serious respiratory illness in the elderly.[4,5] In one study, 41% to 70% of hospitalizations in adults with influenza-like illness and 92% in adults with pneumonia were due to RSV.[3]
The actual burden among all age groups is likely even higher due to underreporting of RSV infections.[4]

Individuals at highest risk for severe RSV infection include:[4]

- Adults 65 years and older
- Individuals with chronic heart or lung disease
- Individuals with compromised immune systems
- Premature infants and infants aged 6 months and younger

Clinical differentiation matters

SARS-Cov-2, influenza (flu), and respiratory syncytial virus (RSV) are 3 major viral respiratory infections with overlapping signs and symptoms making them difficult to differentiate without differential diagnostic testing.[4,8]

Co-infection with SARS-Cov-2 and other viral respiratory pathogens is not rare and increases disease severity and mortality risk compared to SARS-Cov-2 mono-infection.[9,10]

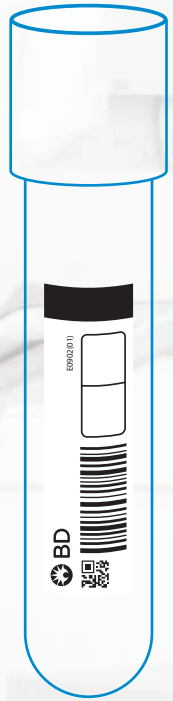
- The most common viral pathogens co-infecting COVID-19 patients are flu A, RSV and flu B.[9,11]
- Co-infection status may influence infection control strategies and treatment recommendations.[9]

Testing is the only way to confirm the diagnosis,[4,8] which may help:

- Manage the spread of infections.[12]
- Allow continued surveillance.[12]
- Implement adequate patient management strategies, especially critical for children, elderly, and co-infected patients.[4,9,10]

4 results, from 1 specimen, in 1 single run

With the **BD Respiratory Viral Panel** for BD MAX™ System, you can **simultaneously detect and differentiate** SARS-CoV-2, influenza A, influenza B, and/or RSV **from one sample**.[1]



- Determine if a patient has COVID-19, flu A, flu B, and/or RSV infection.[1]
- Increase testing capacity and help eliminate the need for multiple tests or doctor visits.[7]
- Identify co-occurring respiratory infections.[1]
- Provide clinically meaningful results that inform patient management strategies.[3,4]

Accurate and efficient clinical differentiation

BD Respiratory Viral Panel[1]

	SARS-CoV-2	Flu A	Flu B	RSV
Targets	Nucleocapsid phosphoprotein gene (N1 and N2)	Matrix protein M1 gene	Matrix protein M1 gene and HA gene	N and M genes
Clinical Performance	PPA: 98.0% (95% CI: 93.1% – 99.5%) NPA: 98.6% (95% CI: 95.9% – 99.5%)	PPA: 100.0% (95% CI: 92.9% – 100.0%) NPA: 99.6% (95% CI: 97.9% – 99.9%)	PPA: 100.0% (95% CI: 92.9% – 100.0%) NPA: 100.0% (95% CI: 98.6% – 100.0%)	PPA: 96.0% (95% CI: 86.5% – 98.9%) NPA: 100.0% (95% CI: 98.6% – 100.0%
Sample Types	Anterior nasal swab			
	Nasopharyngeal swab			
Sample Types	BD universal viral transport system Copan universal transport media system			

PPA: positive percent agreement, NPA: negative percent agreement

Streamlined integration into existing workflow with the BD MAX™ System family

- The BD MAX™ System family offers you a fully integrated, automated real-time PCR platform with a broad menu of molecular IVD and open-system tests.[13]
- The automated workflow and analytical performance reduces the need for manual tasks and achieves more rapid results.[14,15]
- The compact and self-contained unitized reagent strips and the new reclosing septum cap is designed to simplify waste management and reduce the risk of contamination.

Snap

Assemble unitized reagent strips with extraction and PCR reagents.

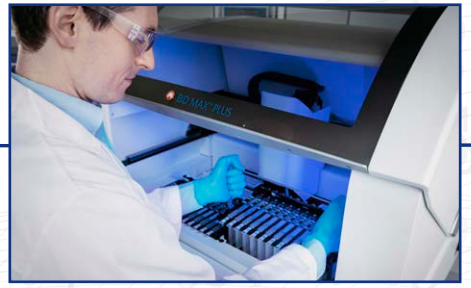
Load

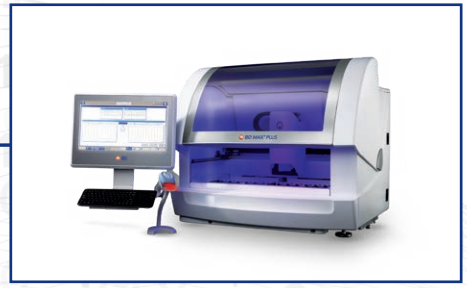
Load the Sample Buffer Tubes, PCR cartridges, and racks.

Go

Come back in just over 2 to 3 hours hours for results.*

*Assay times may vary.



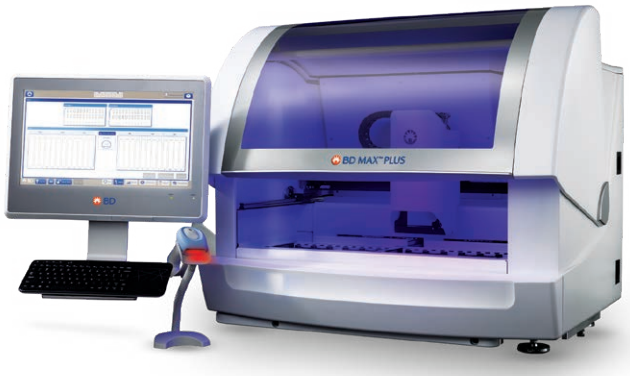


Less than **1.5 minutes** hands-on time per sample[15,16]

24 patient results in **2 to 3 hours,** on average*[16]

96 samples per **8 hour shift**[16]

Consolidate your respiratory molecular testing to the BD MAX™ System



BD Respiratory Viral Panel for BD MAX™ System
Deliver 4 results in one test.

Cat: 445215

BD SARS/Flu for BD MAX™ System
Co-test for SARS-CoV-2 (2 targets) and Flu A/ Flu B.

Cat: 445011†

BD SARS-CoV-2 reagents for BD MAX™ System
SARS-CoV-2 detection with 2 targets on N gene, remaining efficient for the detection of variants.

Cat: 445003-01

BD MAX™ MDR-TB†
Detection of tuberculosis and mutations associated with antibiotic resistance, supported by the WHO.

Cat: 443878†

For more information about BD MAX™ Molecular Diagnostic System, please visit: **bd.com**

†This product has not been FDA cleared or approved.
CI, confidence interval; Flu, influenza; IVD, in vitro diagnostics; MDR-TB, multi drug resistant tuberculosis; NPA, negative percent agreement; PPA, positive percent agreement; RSV, respiratory syncytial virus.

References: 1. BD Respiratory Viral Panel for BD MAX™ System Package Insert (P0261). **2.** Shi T et al. *Lancet*. 2017;390(10098):946–58. **3.** Ali A et al. *Int J Infect Dis.* 2020;90:170–80. **4.** NFID. *Respiratory Syncytial Virus (RSV).* Updated February 2022. Accessed 27 May 2022. https://www.nfid.org/infectious-diseases/rsv/. **5.** McKimm-Breschkin JL et al. *Antiviral Res.* 2022;197:105227. **6.** Encinosa W et al. *JAMA Pediatr.* 2022;176(5):520–2. **7.** Wei JS. Aust *J Gen Pract.* 2020;49(10):683–6. **8.** CDC. *Similarities and Differences between Flu and COVID-19.* Updated January 2022. Accessed 27 May 2022. www.cdc.gov/flu/symptoms/flu-vs-covid19.htm. **9.** Musuuza JS et al. *PLoS One.* 2021;16(5):e0251170. **10.** Swets MC et al. *Lancet*. 2022;399(10334):1463–4. **11.** Lansbury L et al. *J Infect.* 2020;81(2):266–75. **12.** CDC. *CDC's Diagnostic Multiplex Assay for Flu and COVID-19 at Public Health Laboratories and Supplies.* Updated October 2021. Accessed 27 May 2022. https://www.cdc.gov/coronavirus/2019-ncov/lab/multiplex.html. **13.** BD MAX™ System User's Manual. Becton, Dickinson and Company: Sparks, MD. **14.** Mortensen JE et al. *BMC Clin Pathol.* 2015;15:9. **15.** Hirvonen JJ et al. *Eur J Clin Microbiol Infect Dis.* 2015;34(5):1005–9. **16.** Felder RA et al. *J Lab Autom.* 2014;19(5):468–73.

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