



### FDA COMBATING COVID-19 WITH MEDICAL DEVICES

Since the beginning of the COVID-19 pandemic, FDA has been working to facilitate the development and availability of medical products and equipment for use by patients, physicians and healthcare systems as expeditiously and safely as possible. All of FDA's latest actions around COVID-19 are available on our <u>website</u>.

During public health emergencies, FDA can use emergency authorities, including Emergency Use Authorizations (EUAs), to help make medical products available as quickly as possible by allowing unapproved medical products to reach patients in need when there are no adequate, FDA-approved and available alternatives. These products may include tests to help diagnose diseases, critical medical devices needed by patients or healthcare personnel in the context of a public health crisis, and drugs to be used in an emergency to diagnose, treat, or prevent serious or life-threatening diseases or conditions.

During this pandemic, there have been a number of supply issues that have made it challenging to obtain access to diagnostic tests and test supplies (like swabs), and medical equipment. We are updating <u>FAQs on our webpage</u> regularly to provide information on diagnostic testing, including alternative test supplies and ways to conduct testing when necessary. If test developers or labs are having any issues developing or running tests, and for difficulties obtaining medical devices such as personal protective equipment (PPE) and other medical equipment shortages, we have a toll-free phone line, 1-888-INFO-FDA (1-888-463-6332), then press star (\*), that is open Monday-Friday: 8:00 a.m.-8 p.m. ET.

Testing is one of the pillars of our nation's response to COVID-19 and the FDA continues to take actions to help make these critical products available, including by issuing EUAs. During this pandemic, FDA has issued EUAs to different types of COVID-19 tests. One type are polymerase chain reaction (PCR) tests, a molecular diagnostic testing technique that detects the genetic material from the virus and can help diagnose an active COVID-19 infection. Another type are serological tests that look for antibodies to the virus, which can help identify individuals who have developed an adaptive immune response to the virus, as part of either an active infection or a prior infection (serological, or antibody, tests should not be used to diagnose active infection). The newest type of authorized COVID-19 tests are antigen tests, designed for the rapid detection of proteins from the virus that causes COVID-19.

The molecular diagnostic tests are generally authorized for qualitative detection of nucleic acid from SARS-CoV-2 in specific upper and lower respiratory specimens from individuals suspected of COVID-19 by their healthcare provider. The specific specimen types for each test can be found in the authorization letter. Some molecular diagnostic tests may require a highly trained operator to manually perform the test (e.g., perform an RNA extraction step usually using specific extraction platforms and kits), while other tests are automated and require only limited training to perform). Typically, manually performed tests are authorized for use by laboratories certified to perform high-complexity tests, while automated tests are authorized for use by laboratories

certified to perform moderate complexity tests and/or at the point-of-care by facilities operating under a Clinical Laboratory Improvement Amendments (CLIA) Certificate of Waiver.

The serological (antibody) tests are generally authorized for the qualitative detection of antibodies to SARS-CoV-2 in blood, serum, and/or plasma, and are intended for use as an aid in identifying individuals with an adaptive immune response to SARS-CoV-2, indicating recent or prior infection. The specific specimen types for each test can be found in the authorization letter.

Antigen tests quickly detect fragments of proteins found on or within the virus by testing samples collected from the nasal cavity using swabs. One of the main advantages of an antigen test is the speed of the test, which can provide results in minutes. However, antigen tests may not detect all active infections, as they do not work the same way as a PCR test. Antigen tests are very specific for the virus but are not as sensitive as molecular PCR tests. This means that positive results from antigen tests are highly accurate, but there is a higher chance of false negatives, so negative results do not rule out infection.

Beyond tests that diagnose or detect SARS-CoV-2 virus or antibodies, there are also tests that are authorized for use in the management of patients with COVID-19, such as to detect biomarkers related to inflammation. Once patients are diagnosed with COVID-19 disease, these additional tests can be used to inform patient management decisions.

In addition to COVID-19 tests, the FDA has issued EUAs for other devices, such as ventilators, respirators, face shields, decontamination systems and protective barrier enclosures to treat COVID-19 patients and to protect healthcare workers. The list below includes the device EUAs that FDA has issued to date to diagnose, treat and prevent the spread of COVID-19.

### Additional Resources

- Policy for Coronavirus Disease-2019 Tests During the Public Health Emergency (Revised) Immediately in Effect Guidance for Clinical Laboratories, Commercial Manufacturers, and Food and Drug Administration Staff
- Insight into FDA's Revised Policy on Antibody Tests: Prioritizing Access and Accuracy
- FAQs on Testing for SARS-CoV-2

SPONSOR	PRODUCT (link to authorization letter)	DESCRIPTION	
DIAGNOSTICS - ANTIGEN  Detect fragments of protein using swabs	ins found on or within the virus l	by testing samples collected from the nasal cavity	
Quidel Corporation	Sofia SARS Antigen FIA	Can be run in moderate and high complexity	
5/08/2020		labs and POC settings operating under a CLIA Certificate of Waiver	
DIAGNOSTICS – MOLECULAR			

Tests that detect parts of the SARS-CoV-2 virus and can be used to diagnose infection with the SARS-CoV-2 virus. These include molecular tests and antigen tests.				
virus. Triese include molecular tests and antigen tests.				
Center for Disease	CDC 2019-nCoV Real-Time	Developed by CDC and initially distributed to		
Control and Prevention	RT-PCR Diagnostic Panel	public health labs across the country		
2/4/2020		Can only be run in high complexity labs		
Wadsworth – New York	New York SARS-CoV-2 Real-	<ul> <li>Developed by Wadsworth based on CDC's</li> </ul>		
State Public Health	time Reverse Transcriptase	published protocol		
	(RT)-PCR Diagnostic Panel	Run in qualified labs across New York State		
2/29/2020		Can only be run in high complexity labs		
Roche Molecular	cobas® SARS-CoV-2 for use	Commercially distributed as a kit to labs		
Systems, Inc.	on the cobas® 6800/8800	Can be run in moderate and high complexity		
3/12/2020	<u>Systems</u>	labs		
Life Technologies (a part	TaqPath™ COVID-19 Combo	Commercially distributed as a kit to labs		
of Thermo Fisher	Kit, 100 Rxn, TaqPath™	<ul> <li>Can only be run in high complexity labs</li> </ul>		
Scientific, Inc.)	COVID-19 Combo Kit, 1,000			
3/13/2020	Rxn			
Hologic, Inc.	Panther Fusion SARS-CoV-2	Reagents commercially distributed as a kit to		
- / /	<u>Assay</u>	labs		
3/16/2020		Can only be run in high complexity labs		
Quidel Corporation	Lyra <sup>®</sup> SARS-CoV-2 Assay	Reagents commercially distributed as a kit to		
- / /		labs		
3/17/2020		Can only be run in high complexity labs		
Abbott Molecular, Inc.	Abbott RealTime SARS-CoV-2	,		
2/42/222	<u>assay</u>	labs		
3/18/2020		Can only be run in high complexity labs		
GenMark Diagnostics,	ePlex SARS-CoV-2 Test	Reagents commercially distributed as a kit to		
Inc.		labs		
		Can run up to 24 specimens at the same time		
2/10/2020		Can be run in a moderate or high complexity		
3/19/2020		lab		
DiaSorin Molecular	Simplexa COVID-19 Direct	Reagents commercially distributed as a kit to		
LLC		labs		
		• Can run 1 specimen at a time		
3/19/2020		<ul> <li>Can be run in moderate and high complexity labs</li> </ul>		
Primerdesign Ltd.	Primerdesign Ltd COVID-19	5		
i i illici uesigii Liu.	genesig Real-Time PCR	Reagents commercially distributed as a kit to labs		
3/20/2020	Benesig hear time felt			
Cepheid	Xpert Xpress SARS-CoV-2	5		
Серпеш	test	Reagents commercially distributed as a kit to labs		
	<u> </u>	<ul> <li>Can run up to 2,000 samples per day</li> </ul>		
		Can run up to 2,000 samples per day		

Updated June 15, 2020		
		Can be run in a high or moderate complexity
		lab or at the Point of Care (POC) near the
3/20/2020		patient (e.g., CLIA waived sites)
Mesa Biotech Inc	Accula SARS-CoV-2 Test	Reagents commercially distributed as a kit to
		labs
		Runs one specimen at a time
		Can be run in a high or moderate complexity
		lab or at the Point of Care (POC) near the
3/23/2020		patient (e.g., CLIA waived sites)
BioFire Defense, LLC	BioFire COVID-19 Test	<ul> <li>Reagents commercially distributed as a kit to labs</li> </ul>
		• Can run up to 264 tests per day
3/23/2020		Can be run in moderate or high complexity labs
PerkinElmer, Inc.	PerkinElmer New	Reagents commercially distributed as a kit to
	Coronavirus Nucleic Acid	labs
3/24/2020	<u>Detection kit</u>	Can only be run in high complexity labs
Avellino Labs USA	AvellinoCoV2 test	Developed and run in Avellino labs; not
		distributed to other labs
		High complexity test limited to authorized
3/25/2020		laboratories
BGI Genomics Co. Ltd.	Real-Time Fluorescent RT-	Reagents commercially distributed as a kit to
	PCR Kit for Detecting SARS-	labs
3/26/2020	<u>2019-nCoV</u>	Can only be run in high complexity labs
Luminex Molecular	NxTAG CoV Extended Panel	Reagents commercially distributed as a kit to
Diagnostics, Inc.	<u>Assay</u>	labs
3/27/2020		Can only be run in high complexity labs
Abbott Diagnostics	ID NOW™ COVID-19	Reagents commercially distributed as a kit
Scarborough, Inc.		Requires a specific platform (ID NOW), of
		which there are 18,000 installed across the US
		• Runs one specimen at a time; each takes <13
		minutes
		Can be run in a high or moderate complexity
		lab or at the Point of Care (POC) near the
3/27/2020		patient (deemed CLIA waived)
NeuMoDx Molecular,	NeuMoDx SARS-CoV-2 Assay	Reagents commercially distributed as a kit
Inc.		Can run 288 or 96 samples at once, depending
		on the instrument, and takes 80 minutes per
		sample
		Can be run in high and moderate complexity
3/30/2020		labs
QIAGEN GmbH	QIAstat-Dx Respiratory	Detects multiple other respiratory viral (17)
	SARS-CoV-2 Panel	and bacterial (3) organisms
		Reagents commercially distributed as a kit to
		labs

3/30/2020		•	Runs one specimen at a time and takes one hour Can be run in high and moderate complexity labs
EUA for COVID-19 LDTs	Laboratory developed tests that are authorized are listed below and hyper link to letter granting inclusion under EUA	•	Authorizes the use of LDTs that meet certain criteria Authorized tests can be used in the high complexity CLIA-certified lab that developed the test Appendix A: Authorized Molecular-Based
3/31/2020			Laboratory Developed Tests for Detection of Nucleic Acid from SARS-CoV-2

### Laboratories (Date of Authorization)

- AIT Laboratories (4/24/2020)
- Altru Diagnostics (4/30/2020)
- Aspirus Reference Laboratory (6/1/2020)
- Avera Institute for Human Genetics (5/22/2020)
- Biocerna (4/28/2020)
- Biocollections Worldwide, Inc. (5/07/2020)
- Cedars-Sinai Medical Center, Department of Pathology and Laboratory Medicine (5/13/2020)
- CirrusDx SARS-CoV-2 Assay (4/15/2020)
- Color Genomics, Inc. (5/18/2020)
- Columbia University Laboratory of Personalized Genomic Medicine (5/12/2020)
- Corneum Laboratory Services (6/12/2020)
- CSI Laboratories (06/02/2020)
- Diagnostic Molecular Laboratory-Northwestern Medicine (4/02/2020)
- Diatherix Eurofins Laboratory (4/22/2020)
- Exact Sciences Laboratories (4/14/2020), Amendment (5/22/2020)
- Express Gene LLC (dba Molecular Diagnostics Laboratory) (5/22/2020)
- Gravity Diagnostics, LLC (06/01/2020)
- Hackensack University Medical Center (HUMC) Molecular Pathology Laboratory (4/15/2020)
- Hangzhou Biotest Biotech Co., Ltd. (6/4/2020)
- Infectious Diseases Diagnostics Laboratory (IDDL), Boston Children's Hospital (4/14/2020)
- Infectious Disease Diagnostics Laboratory-Children's Hospital of Philadelphia (4/02/2020)
- Integrity Laboratories (4/13/2020)
- Massachusetts General Hospital (Mass Gen) (4/03/2020)
- Mayo Clinic Laboratories, Rochester, MN (04/20/2020)
- Nationwide Children's Hospital (4/27/2020)
- Nebraska Medicine Clinical Laboratory (6/4/2020)
- One Health Laboratories (5/13/2020)
- Orig3n, Inc.(4/10/2020)
- Pathology/Laboratory Medicine Lab of Baptist Hospital Miami (4/13/2020)
- Southwest Regional PCR Laboratory LLC. PCR MicroGen DX (4/23/2020)

- Specialty Diagnostic (SDI) Laboratories (4/10/2020)
- Stanford Health Care Clinical Virology Laboratory (4/08/2020)
- Ultimate Dx Laboratory (4/24/2020)
- University of North Carolina Medical Center (4/10/2020)
- UTMG Pathology Laboratory (5/01/2020)
- Viracor Eurofins Clinical Diagnostics (4/06/2020)
- Warrior Diagnostics, Inc. (6/10/2020)
- Yale New Havel Hospital, Clinical Virology Laboratory (3/31/2020)

<ul> <li>Yale New Havel Hospit</li> </ul>	<u>tai, Ciinicai Virology Laboratory i</u>	(3/3)	<u>1/2020]</u>
Ipsum Diagnostics	COV-19 IDx Assay	•	Uses commercially available reagents
		•	Can only be run in high complexity labs by
4/1/2020			lpsum
Becton, Dickinson &	BioGX SARS-CoV-2 Reagents	•	Reagents commercially distributed as a kit to
Company (BD)	for BD MAX System		labs
		•	Fully automated, 8 samples per hour
4/2/2020		•	Can be run in moderate and high complexity
4/2/2020			labs
Luminex Corporation	ARIES SARS-CoV-2 Assay	•	Reagents commercially distributed as a kit to
			labs
		•	Can be run in moderate and high complexity
4/3/2020			labs
ScienCell Research	ScienCell SARS-CoV-2	•	Reagents commercially distributed as a kit to
Laboratories	Coronavirus Real-time RT-		labs
4/3/2020	PCR (RT-qPCR) Detection Kit	•	Can only be run in high complexity labs
Co-Diagnostics, Inc.	Logix Smart Coronavirus	•	Reagents commercially distributed as a kit to
	Disease 2019 (COVID-19) kit		labs
4/3/2020		•	Can only be run in high complexity labs
Gnomegen LLC	Gnomegen COVID-19 RT-	•	Reagents commercially distributed as a kit to
	<u>Digital PCR Detection Kit</u>		labs
4/6/2020		•	Can only be run in high complexity labs
InBios International, Inc	Smart Detect SARS-CoV-2	•	Reagents commercially distributed as a kit to
	rRT-PCR Kit		labs
4/7/2020		•	Can only be run in high complexity labs
DiaCarta, Inc.	QuantiVirus SARS-CoV-2 Test	•	Reagents commercially distributed as a kit to
	<u>kit</u>		labs
4/8/2020		•	Can only be run in high complexity labs
Becton, Dickinson &	BD SARS-CoV Reagents for	•	Reagents commercially distributed as a kit to
Company (BD)	BD MAX System		labs
		•	Can be run in moderate and high complexity
4/8/2020			labs
Atila BioSystems, Inc.	iAMP COVID-19 Detection	•	Reagents commercially distributed as a kit to
	<u>Kit</u>		labs
4/10/2020		•	Can only be run in high complexity labs

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Maccura Biotechnology	SARS-CoV-2 Fluorescent PCR	Reagents commercially distributed as a kit to
(USA) LLC	<u>Kit</u>	labs
4/15/2020		Can only be run in high complexity labs
GenoSensor, LLC.	GS™ COVID-19 RT-PCR KIT	Reagents commercially distributed as a kit to labs
4/16/2020		Can only be run in high complexity labs
KorvaLabs Inc.	Curative-Korva SARS-Cov-2	Laboratory Developed Test
	Assay	<ul> <li>High complexity test limited to KorvaLabs, Inc., a certified high complexity laboratory</li> </ul>
4/16/2020		
Fosum Pharma USA Inc.	Fosun COVID-19 RT-PCR	Reagents commercially distributed as a kit to
4/17/2020	<u>Detection Kit</u>	labs
OSANG Healthcare	Canalindar COVID 10 Plus	Can only be run in high complexity labs  Output  Description  Des
OSANG HEAILIICATE	GeneFinder COVID-19 Plus RealAmp Kit	<ul> <li>Reagents commercially distributed as a kit to labs</li> </ul>
4/18/2020		Can only be run in high complexity labs
Trax Management	PhoenixDx 2019-CoV	Reagents commercially distributed as a kit to
Services Inc.		labs
4/20/2020		Can only be run in high complexity labs
Seegene, Inc.	Allplex 2019-nCoV Assay	Reagents commercially distributed as a kit to labs
4/21/2020		<ul> <li>Can only be run in high complexity labs</li> </ul>
altona Diagnostics	RealStar SARS-CoV02 RT-PCR	Reagents commercially distributed as a kit to
GmbH	Kits U.S.	labs
4/22/2020		Can only be run in high complexity labs
SD Biosensor, Inc.	STANDARD M nCoV Real-	Reagents commercially distributed as a kit to
	Time Detection Kit	labs
4/23/2020		Can only be run in high complexity labs
SEASUN BIOMATERIALS	U-TOP COVID-19 Detection	Reagents commercially distributed as a kit to
4/27/2020	Kit	labs
	Phoenix COVID 10	Can only be run in high complexity labs
Rheonix, Inc.	Rheonix COVID-19 MDxAssay	Reagents commercially distributed as a kit to labs
4/29/2020	IVIDXASSay	<ul> <li>Can only be run in high complexity labs</li> </ul>
LabGenomics Co., Ltd.	LabGunCOVID-19 RT-PCR Kit	Reagents commercially distributed as a kit to
		labs
4/29/2020		Can only be run in high complexity labs
Bio-Rad Laboratories,	Bio-Rad SARS-CoV-2 ddPCR	Reagents commercially distributed as a kit to
Inc.	<u>Test</u>	labs
5/1/2020		Can only be run in high complexity labs
BioFire Diagnostics, LLC	BioFire Respiratory Panel 2.1 (RP2.1)	Reagents commercially distributed as a kit to labs
	<u> </u>	<ul> <li>Can be run in moderate and high complexity</li> </ul>
5/1/2020		labs
	•	•

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Sansure BioTech Inc.	Novel Coronavirus (2019-	Reagents commercially distributed as a kit to
	nCoV) Nucleic Acid	labs
	<u>Diagnostic Kit (PCR-</u>	Can only be run in high complexity labs
5/4/2020	Fluorescence Probing)	
Fast Track Diagnostics	FTD SARS-CoV-2	Reagents commercially distributed as a kit to
Luxembourg S.á.r.l. (a		labs
Siemens Healthineers		Can only be run in high complexity labs
Company)		
5/5/2020		
Sherlock Biosciences,	Sherlock CRISPR SARS-CoV-2	Reagents commercially distributed as a kit to
Inc.	<u>Kit</u>	labs
5/6/2020		Can only be run in high complexity labs
OPTI Medical Systems,	OPTI SARS-CoV-2 RT PCR	Reagents commercially distributed as a kit to
Inc.	<u>Test</u>	labs
5/6/2020		Can only be run in high complexity labs
BioMérieux SA	SARS-COV-2 R-GENE	Reagents commercially distributed as a kit to
		labs
5/6/2020		Can only be run in high complexity labs
Zymo Research	Quick SARS-CoV-2rRT-PCR	Reagents commercially distributed as a kit to
Corporation	Kit	labs
5/7/2020		Can only be run in high complexity labs
Gnomegen LLC	Gnomegen COVID-19-RT-	Reagents commercially distributed as a kit to
S	qPCR Detection Kit	labs
5/8/2020		<ul> <li>Can only be run in high complexity labs</li> </ul>
Abbott Molecular Inc.	Alinity m SARS-CoV-2 assay	Reagents commercially distributed as a kit to
		labs
5/11/2020		<ul> <li>Can only be run in high complexity labs</li> </ul>
1drop Inc.	1copy COVID-19 qPCR Multi	Reagents commercially distributed as a kit to
Tarop me.	Kit	labs
5/11/2020	100	<ul> <li>Can only be run in high complexity labs</li> </ul>
Applied DNA Sciences,	Linea COVID-19 Assay Kit	Reagents commercially distributed as a kit to
Inc.	Elifed COVID 13 A33dy Nit	labs
5/13/2020		
GeneMatrix, Inc.	NeoPlex COVID-19 Detection	Can only be run in high complexity labs      Reagants commercially distributed as a kit to
Generalitik, IIIC.		Reagents commercially distributed as a kit to laborated.
5/14/2020	Kit	labs
	Antimo o CADC C-1/ 2	Can only be run in high complexity labs
Hologic, Inc.	Aptima SARS-CoV-2 assay	Reagents commercially distributed as a kit to
E /4 4 /0000		labs
5/14/2020		Can only be run in high complexity labs
Quidel Corporation	Lyra Direct SARS-CoV-2	Reagents commercially distributed as a kit to
_ , ,	Assay	labs
5/18/2020		Can only be run in high complexity labs

Updated June 15, 2020	AO TOD COVID 10 Banid	Desgents commercially distributed as a kit to
Seasun Biomaterials, Inc.	AQ-TOP COVID-19 Rapid Detection Kit	<ul> <li>Reagents commercially distributed as a kit to labs</li> </ul>
5/21/2020	<u>Detection Rit</u>	<ul> <li>Can only be run in high complexity labs</li> </ul>
SolGent Co., Ltd	DiaPlexQ Novel Coronavirus	Reagents commercially distributed as a kit to
Joident Co., Ltd	(2019-nCoV) Detection Kit	labs
5/21/2020	12013 HOSVY Bettestion Mit	<ul> <li>Can only be run in high complexity labs</li> </ul>
BioCore Co., Ltd	BioCore 2019-nCoV Real	Reagents commercially distributed as a kit to
,	Time PCR Kit	labs
5/21/2020		Can only be run in high complexity labs
Dba SpectronRx	Hymon SARS-CoV-2 Test Kit	Reagents commercially distributed as a kit to labs
5/22/2020		Can only be run in high complexity labs
Genetron Health	Genetron SARS-CoV-2 RNA Test	Reagents commercially distributed as a kit to
(Beijing) Co., Ltd.		labs
		Can only be run in high complexity labs
6/5/2020		
Euroimmun US, Inc.	EURORealTime SARS-Cov-2	Reagents commercially distributed as a kit to
6/8/2020		labs
ChromaCode Inc.	HDPCR SARS-CoV-2 Assay	Can only be run in high complexity labs
Chromacode inc.	TIDECK SAKS-COV-2 ASSAY	<ul> <li>Reagents commercially distributed as a kit to labs</li> </ul>
6/9/2020		<ul> <li>Can only be run in high complexity labs</li> </ul>
Illumina, Inc.	Illumina COVIDSeq Test	Reagents commercially distributed as a kit to
marrina, mo.		labs
6/9/2020		<ul> <li>Can only be run in high complexity labs</li> </ul>
Cue Health Inc.	Cue COVID-19 Test	Reagents commercially distributed as a kit to labs
		<ul> <li>Can be run in a high or moderate complexity</li> </ul>
		lab or at the Point of Care (POC) near the
6/10/2020		patient (e.g., CLIA waived sites)
TBG Biotechnology Corp.	ExProbe SARS-CoV-2 Testing Kit	Reagents commercially distributed as a kit to
6/10/2020		labs
		Can only be run in high complexity labs
Tide Laboratories, LLC	DTPM COVID-19 RT-PCR Test	<ul> <li>Developed and run at Tide Laboratories; not distributed to other labs</li> </ul>
6/10/2020		<ul> <li>High complexity test limited to authorized laboratories</li> </ul>
RTA Laboratories	Diagnovital SARS-CoV-2 Real-	Reagents commercially distributed as a kit to
<b>Biological Products</b>	Time PCR Kit	labs
Pharmaceutical and		Can only be run in high complexity labs
Machinery Industry		
6/10/2020		
DIAGNOSTICS - MOLECULA	AR – HOME COLLECTION	

Can be used with specimens that are self-collected at home with specific collection kits, then sent to the lab for testing.				
Laboratory Corporation	COVID-19 RT-PCR Test	•	Developed and run in high complexity LabCorp	
of America			labs only; not for broader lab distribution	
	COVID-19 RT-PCR	•	Amendment permits use of the Pixel by	
	<u>Amendment</u>		LabCorp COVID-19 test home collection kit	
			allowing patients to self-collect nasal swab	
			specimens at home	
		•	The kit provides specimen collection materials	
3/16/2020			and materials to safely send specimens to an	
Amended 4/ 20/2020			authorized laboratory	
Quest Diagnostics	SARS-CoV-2 RNA, Qualitative	•	Developed and run in Quest labs only; not a kit	
Infectious Disease, Inc.	Real-Time RT-PCR		for distribution.	
3/17/2020		•	Can only be run in high complexity labs	

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Rutgers Clinical Genomics Laboratory at RUCDR Infinite Biologics - Rutgers University 5/7/2020	Rutgers Clinical Genomics Laboratory TaqPath SARS- CoV-2-Assay	<ul> <li>Laboratory developed test, limited to Rutgers         Clinical Genomics Laboratory at RUCDR Infinite         Biologics high complexity lab</li> <li>First diagnostic test using at-home collection of         saliva specimens</li> </ul>
Everlywell, Inc. 5/15/2020	Everlywell COVID-19 Test Home Collection Kit	<ul> <li>For use by individuals to self-collect nasal swab specimens at home, when determined by a healthcare provider to be appropriate based on results of a COVID-19 questionnaire, and for use only with in vitro diagnostic (IVD) molecular tests for the detection of SARS-CoV-2 RNA that are indicated for use with the Everlywell COVID-19 Home Collection Kit.</li> </ul>
Assurances Scientific Laboratories  5/15/2020	Assurance SARS-CoV-2 Panel	<ul> <li>Laboratory developed test, limited to         Assurance Scientific high complexity lab</li> <li>Can be used with nasal swab specimens that         are self-collected at home with the Everlywell         home collection kit, then sent to the lab for         testing.</li> </ul>
Fulgent Therapeutics, LLC.  5/15/2020	Fulgent COVID-19 by RT-PCR Test	<ul> <li>Laboratory developed test, limited to Fulgent Therapeutics high complexity lab</li> <li>Can be used with nasal swab specimens that are self-collected at home with the Everlywell home collection kit, then sent to the lab for testing.</li> </ul>
P23 Labs, LLC. 5/21/2020	P23 Labs TaqPath SARS-CoV- 2 Assay	<ul> <li>Laboratory developed test, limited to P23 Labs, LLC, located in Little Rock, Ark.</li> <li>Can be used with saliva specimens that are self-collected at home with the OMNIgene ORAL OM-505 Collection Device, then sent to the lab for testing.</li> </ul>
PrivaPath Diagnostics, Inc.  5/28/2020	LetsGetChecked Coronavirus (COVID-19) Test	<ul> <li>Laboratory developed test, limited to PrivaPath Labs d.b.a. LGC Labs.</li> <li>Can only be used with nasal swabs included with the LetsGetChecked COVID-19 Home Collection Kit, then sent to the lab for testing.</li> </ul>
Phosphorus Diagnostics, LLC. 6/4/2020	Phosphorus COVID-19 RT-qPCR Test	<ul> <li>Laboratory developed test, limited to Phosphorus Diagnostics, LLC, located in Secaucus, NJ.</li> <li>Can be used with saliva specimens that are collected at home or in a healthcare setting using the Oragene Dx OGD-510 collection device, when determined to be appropriate by a HCP.</li> </ul>

# SEROLOGY/ANTIBODY TESTS

Tests that detect antibodies (e.g., IgM, IgG) to the SARS-CoV-2 virus. Serology/antibody tests cannot be used to diagnose a current infection.

Cellex Inc.	Serology Test qSARS-CoV-2 lgG/lgM Rapid Test	<ul> <li>The first serological test authorized under EUA.</li> <li>Detects SARS-CoV-2 antibodies in blood and differentiates between IgG and IgM antibodies.</li> <li>Rapid test provides results in 15-20 minutes.</li> </ul>
4/1/2020		Can be run in high and moderate complexity labs
Chembio Diagnostic Systems, Inc. 4/14/2020	DPP COVID-19 IgM/IgG System	<ul> <li>Detects and differentiates IgM and IgG antibodies in whole blood, fingerstick whole blood, serum and plasma.</li> <li>Can be run in high and moderate complexity labs</li> </ul>
Ortho-Clinical Diagnostics, Inc. 4/14/2020	VITROS Immunodiagnostic Products Anti-SARS-CoV-2 IgG Reagent Pack	<ul><li>Detects IgG antibodies in serum.</li><li>Can be run in high and moderate complexity labs</li></ul>
Mount Sinai Laboratory 4/15/2020	COVID-19 ELISA IgG Antibody Test	<ul><li>Detects IgG antibodies in serum and plasma.</li><li>Test is limited to Mount Sinai Laboratory.</li></ul>
DiaSorin Inc. 4/24/2020	LIAISON SARS-CoV-2 S1/S2 IgG	<ul> <li>Detects IgG antibodies in serum and plasma.</li> <li>Can be run in high and moderate complexity labs</li> </ul>
Autobio Diagnostics Co. Ltd. 4/24/2020	Anti-SARS-CoV-2 Rapid Test	<ul> <li>Detects and differentiates IgM and IgG antibodies in serum and plasma</li> <li>Can be run in high and moderate complexity labs</li> </ul>
Ortho Clinical Diagnostics, Inc. 4/24/2020	VITROS Immunodiagnostic Products Anti-SARS-CoV-2 Total Reagent Pack	<ul> <li>Detects and differentiates IgM and IgG antibodies in serum and plasma</li> <li>Can be run in high and moderate complexity labs</li> </ul>
Abbott Laboratories Inc. 4/26/2020	SARS-CoV-2 IgG assay	<ul> <li>Detects IgG antibodies in serum and plasma.</li> <li>Can be run in high and moderate complexity labs</li> </ul>

Manufacturers of In vitro diagnostic SARS-CoV-2 Antibody Tests that have been evaluated in an independent validation study performed by NIH National Cancer Institute or by another government agency designated by FDA and confirmed by FDA to meet the criteria set forth in the Scope of Authorization

1/28/2020

FDA issued an Emergency Use Authorization for SARS-CoV-2 Antibody Tests (Lateral flow or Enzyme-linked immunosorbent assay (ELISA) tests) that have been evaluated in an independent validation study performed at the National Institutes of Health's (NIH) National Cancer Institute (NCI), or by another government agency designated by FDA, and are confirmed by FDA to meet the criteria set forth in the Scope of Authorization (Section II) in the Letter of Authorization under section 564 of the Federal Food, Drug, and Cosmetic Act (Act) (21 U.S.C. § 360bbb-3). Under this EUA, authorized devices are intended for use as an aid in identifying individuals with an adaptive immune response to SARS-CoV-2, indicating recent or prior infection, by detecting antibodies (IgG, or IgG and IgM, or total), as specified in each authorized device's instructions for use, to SARS-CoV-2 in human plasma and/or serum.

Emergency use of the authorized devices is limited to the authorized laboratories. Authorized Laboratories are laboratories certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. 263a, to perform moderate or high complexity tests. Authorized devices will be added to Appendix A (below) upon submission of the information set forth in the Scope of Authorization (Section II) and after confirmation that the applicable performance and labeling criteria set forth in the Scope of Authorization (Section II) have been met.

- Fact Sheet for Healthcare Providers
- Fact Sheet for Recipients

4/28/2020	<ul> <li>Appendix A Table</li> </ul>		
Bio-Rad Laboratories	Platelia SARS-CoV-2 Total Ab	•	Detects and differentiates IgM and IgG
	<u>assay</u>		antibodies in serum and plasma
4/29/2020		•	Can be run in high complexity labs
Wadsworth Center, New	New York SARS-CoV	•	Detects total antibodies in serum.
York State Department	Microsphere Immunoassay	•	Test is limited to Wadsworth Center, New York
of Health	for Antibody Detection		State Department of Health.
4/30/2020			
Roche Diagnostics	Elecsys Anti-SARS-CoV-2	•	Detects Anti-SARS-Cov-2 antibodies in serum
			and plasma.
		•	Can be run in moderate and high complexity
5/2/2020			labs
EUROIMMUN US Inc.	Anti-SARS-CoV-2 ELISA (IgG)	•	Detects IgG antibodies in serum and plasma.
5/4/2020		•	Can be run in high complexity labs
Siemens Healthcare	Atellica IM SARS-CoV-2 Total	•	Detects Anti-SARS-Cov-2 antibodies in serum
Diagnostics Inc.	(COV2T)		and plasma.
		•	Can be run in moderate and high complexity
5/29/2020			labs
Siemens Healthcare	ADVIA Centaur SARS-CoV-2	•	Detects Anti-SARS-Cov-2 antibodies in serum
Diagnostics Inc.	Total (COV2T)		and plasma.
		•	Can be run in moderate and high complexity
5/29/2020			labs

Healgen Scientific LLC	COVID-19 IgG/IgM Rapid Test Cassette (Whole	•	Detects and differentiates IgM and IgG antibodies in whole blood, plasma and serum.
5/29/2020	Blood/Serum/Plasma)	•	Can be run in moderate and high complexity labs
Hangzhou Biotest Biotech Co., Ltd.	RightSign COVID-19 IgG/IgM Rapid Test Cassette	•	Detects IgM and IgG antibodies in serum, plasma, and venous whole blood Can be run in high and moderate complexity
6/4/2020			labs
Vibrant America Clinical Labs 6/4/2020	Vibrant COVID-19 Ab Assay	•	Detects IgG and IgM antibodies in serum and dried blood  Can be run in high complexity labs
Siemens Healthcare	Dimension EXL SARS-CoV-2	•	Detects total antibodies in serum and plasma
Diagnostics Inc. 6/8/2020	Total antibody assay (CV2T)	•	Can be run in moderate and high complexity labs
Siemens Healthcare	Dimension Vista SARS-CoV-2	•	Detects total antibodies in serum and plasma
Diagnostics Inc.	Total antibody assay (COV2T)	•	Can be run in moderate and high complexity
6/8/2020			labs

# **TESTS FOR MANAGEMENT OF COVID-19 PATIENTS**

This table includes information about authorized in vitro diagnostic tests that may be used in the management of patients with COVID-19 that have been authorized individually. These EUAs have been issued for each individual test with certain conditions of authorization required of the manufacturer and authorized laboratories.

Roche Diagnostics	Elecsys IL-6	<ul> <li>To assist in identifying severe inflammatory response in patients with confirmed COVID-19 illness to aid in determining the risk of intubation with mechanical ventilation</li> <li>Can be run in moderate and high complexity</li> </ul>
6/2/2020		labs
DEVICES		
Abiomed, Inc 5/29/2020	Impella RP System	Intended to be used by healthcare providers in the hospital setting for providing temporary right ventricular support for up to 14 days in critical care patients for the treatment of acute right heart failure or decompensation caused by complications related to COVID-19, including pulmonary embolism.
Advanced Sterilization	Advanced Sterilization	Decontaminates compatible N95 or N95-
Products, Inc.	Products (ASP) STERRAD	equivalent respirators for single user reuse by
	Sterilization System	healthcare personnel to prevent exposure to
		airborne particulates when there are insufficient
4/15/2020		supplies of N95 respirators.

Updated June 15, 2020		
ALung Technologies, Inc.,  4/22/2020	Hemolung Respiratory Assist System (RAS)	Intended to treat lung failure caused by COVID-19 when used as an adjunct to noninvasive or invasive mechanical ventilation to reduce hypercapnia and hypercapnic acidosis, and/or to maintain normalized levels of partial pressure of carbon dioxide (PCO2) and pH in patients suffering from acute, reversible respiratory failure for whom ventilation of CO2 cannot be adequately, safely, or tolerably achieved.
Ascorn (US), Inc.	Ascorn teleCARE IP Nurse	A nurse call system for use by healthcare providers
A300111 (03), 1110.	Call System	and patients in healthcare environments, including temporary hospital facilities, as a powered environmental control system intended for medical purposes with additional hardware and software modifications implementing the capability for remote communication between patients and healthcare providers, and, for those patients utilizing a ventilator, remote monitoring of ventilator status
5/11/2020		updates to alert the healthcare provider.
Battelle 3/29/2020	System  System	A single compatible respirator to be recycled and reused up to 20 times using the Battelle Decontamination System  Battelle is authorized to scale up their operations to decontaminate about 120,000 respirators daily by using all 12 of their satellite facilities once they submit data to FDA
Baxter Healthcare	oXiris Set device	The oXiris Set device is an extracorporeal blood
Corporation 4/22/2020		purification device used to treat patients 18 years of age or older with confirmed COVID-19 admitted to the intensive care unit (ICU) with confirmed or imminent respiratory failure in need of blood purification, including use in continuous renal replacement therapy, to reduce pro-inflammatory cytokines levels
Baxter Healthcare	<u>Prismaflex ST Set</u>	Continuous renal replacement therapy (CCRT) to
Corporation <i>5/20/2020</i>		treat patients with acute renal failure, fluid overload, or both in an acute care environment during COVID-19
B.Braun	Space and Outlook Pumps	An infusion pump for delivery of medications into a
4/11/2020	(Infusion Pump)	nebulizer to treat COVID-19 patients of all ages
CLEW Medical Ltd.	CLEWICU System	Authorized to be used by healthcare providers in the Intensive Care Unite for adult patients for the computation of proprietary patient status indices refereed to as CLEWRF and CLEWHI as an adjunct

Updated June 15, 2020	<del>,</del>	<del>_</del>
<i>5/26/2020</i> Comunale	Patient Isolation Transport	to patient monitoring during the COVID-19 outbreak. CLEWRF and the CLEWHI indices provide HCP with predictive screening information to assist with the early identification of patients who are likely be diagnosed with respiratory failure or hemodynamic instability with care common complications associated with COVID-19 The PITU is for temporary isolation and transport
5/08/2020	Unit (PITU) Device	of patients by providing an extra layer of barrier protection in addition to personal protective equipment (PPE)
CytoSorbents, Inc. 4/10/2020	CytoSorb Device (Extracorporeal Blood Purification (EBP) Device)	Blood purification system to treat patients 18 years older with confirmed COVID-19 diagnosis admitted to the intensive care unit with confirmed or imminent respiratory failure
Duke University Health System 5/7/2020	Duke Decontamination System	Decontaminates compatible N95 or N95 equivalent respirators
ExThera Medical Corporation 4/17/2020	Seraph 100 Microbind Affinity Blood Filter Device	Blood purification system to treat patients 18 years older with confirmed COVID-19 diagnosis admitted to the intensive care unit with confirmed or imminent respiratory failure
Eko Devices, Inc.	LVEF Screen	Allows for emergency use of the Eko electrocardiogram (ECG) Low Ejection Fraction Tool ("ELEFT") to be used by healthcare professionals to provide an assessment of Left Ventricular Ejection Fraction (LVEF) for use as a diagnostic to screen for potential cardiac complications associated with COVID-19 or underlying cardiac condition that may affect clinical management of COVID-19, in adult patients
5/11/2020		having or suspected of having COVID-19.
Fresenius Medical	multiFiltrate PRO System and multiBic/multiPlus Solutions	Provides continuous renal replacement therapy (CRRT) to treat patients in an acute care environment during the Coronavirus Disease 2019
4/30/2020 G Medical Innovations, Ltd.	G Medical VSMS ECG Patch	(COVID-19) pandemic.  Allowed for use by healthcare professionals in the hospital setting for remote monitoring of the QT interval of an electrocardiogram (ECG) in general care who are 18 years of age or older and are undergoing treatment for COVID-19 with drugs that can prolong QT intervals and may cause life-
5/14/2020 Liberate Medical, LLC	VentFree Respiratory Muscle Stimulator Device	threatening arrhythmias.  It is intended to be used by healthcare professionals (HCP) in healthcare settings to
		1 7

Upaatea June 15, 2020		,
5/1/2020		reduce disuse atrophy of the abdominal wall muscles, which may reduce the number of days of ventilator support in adult patients who require mechanical ventilation.
Lungpacer Medical, Inc.	Lungpacer Medical, Inc.  Diaphragm Pacing Therapy	A device that assists in weaning patients that are at risk of weaning failure off breathing assistance
4/14/2020	System (DPTS)	machines requiring patient intubation
Oceanetics, Inc.  6/13/2020	Negative-pressure Respiratory System with Advanced Ventilation Return ("NRSAVR-100")	A device used by healthcare providers (HCP) as an extra layer of barrier protection in addition to PPE to prevent HCP exposure to pathogenic biological airborne particulates by providing isolation of hospitalized patients with suspected or confirmed diagnosis of COVID-19, at the time of definitive airway management, or when performing medical procedures, or during transport of such patients.
Philips Medizin Systeme	IntelliVue Patient Monitors	Remote patient monitoring for healthcare
Boeblingen GmbH	MX750/MX850, IntelliVue 4-	professionals in the hospital environment for
	Slot Module Rack FMX-4, and IntelliVue Active Displays AD75/AD85 Collectively Referred to as	remote monitoring of adult, pediatric, and neonate patients having or suspected of having COVID-19 to reduce healthcare provider exposure to COVID-19
4/21/2020	"IntelliVue Patient Monitors"	
PhysiolGuard Corporation Ltd. 5/05/2020	PhysiolGuard, ECQ-QT Analysis System	Remote patient monitoring for healthcare professionals in the hospital setting for remote monitoring and detection of changes in the QT interval of an ECG
Sterilucent, Inc. 4/20/2020	Sterilucent, Inc. Sterilization System	Decontaminates compatible N95 or N95 equivalent respirators (compatible N95 respirators) for single-user reuse by healthcare personnel
STERIS 5/21/2020	STERIS STEAM Decon Cycle in AMSCO Medium Steam Sterilizers	Decontaminates compatible N95 respirators for single-user reuse by HCP to prevent exposure to pathogenic biological airborne particulates when there are insufficient supplies of face-filtering respirators (FFRs) resulting from COVID-19
STERIS 4/09/2020	STERIS V-PRO 1 Plus, maX, and maX2 Lower Temperature Systems (STERIS Sterilization Systems)	Decontaminates compatible N95 or N95 equivalent respirators (compatible N95 respirators) for single-user reuse by healthcare personnel
Stryker 5/27/2020	Stryker Sustainability Solutions VHP Decontamination System	Decontaminates compatible N95 respirators for multiple-user reuse by healthcare personnel to prevent exposure to pathogenic biological airborne particulates when there are insufficient supplies of face-filtering respirators resulting from the COVID-19 pandemic.
	-	

Upaatea June 15, 2020		D
Stryker	STERIZONE VP4 N95	Decontaminates compatible N95 or N95
	Respirator Decontamination	equivalent respirators (compatible N95
	<u>Cycle</u>	respirators) for single-user reuse by healthcare
4/15/2020		personnel
Synapse Biomedical, Inc.	Synapse Biomedical, Inc.	A device that assists in weaning patients that are at
	TransAeris Diaphragmatic	risk of weaning failure off breathing assistance
	Pacing Therapy System	machines.
4/13/2020	(DPTS)	
Technical Safety Services	Technical Safety Services VHP	Decontaminates compatible N95 respirators for
6/13/2020	Decontamination System	multiple-user reuse by healthcare personnel (HCP)
0/13/2020	<u> </u>	
		to prevent exposure to pathogenic biological
		airborne particulates when there are insufficient
		supplies of face-filtering respirators resulting from
		COVID-19.
Terumo BCT Inc. and	Spectra Optia Apheresis	Blood purification system to treat patients 18
Market Therapeutics AG	System with the Depuro	years older with confirmed COVID-19 diagnosis
	D2000 Adsorption Cartridge	admitted to the intensive care unite with
4/09/2020		confirmed or imminent respiratory failure
VitalConnect, Inc.	VitalConnect, Inc., VitalPatch	Remote monitoring system used for monitoring
ŕ		and detection of changes in the QT interval of an
		electrocardiogram (ECG) in adult (>18) patients in
		general care (not in the intensive care unit) and
		are undergoing treatment with COVID-19 drugs
4/26/2020		
4/26/2020	COMP 10 Airman Managaran	that may cause life threatening arrhythmias.
Walter Reed National	COVID-19 Airway Management	Emergency use of the CAMIC within the U.S. Army
Military Medical Center	<u>Isolation Chamber (CAMIC)</u>	and MHS by healthcare providers as an extra layer
		of barrier protection in addition to personal
		protective equipment to exposure to pathogenic
		biological airborne particulates during transport of
		suspected or confirmed COVID-19 patients at the
		time of definitive airway management, or when
		performing medical procedures on patients during
5/19/2020		COVID-19.
Manufacturers of Face	Face masks are authorized un	der this umbrella authorization when they are
Masks (non-surgical)		of the general public, which includes HCP (refers to
ividente (meni edi Arean)	•	rving in healthcare settings), to cover their noses and
		OC recommendations. Authorized face masks must
	meet the following requireme	
	·	accurately to describe the product as a face mask
		ne body contacting materials (which does not
	include any drugs or bi	
	2. The product is labeled accurately so that it does not claim to be intended	
	for use as a surgical mask or to provide liquid barrier protection, and	
	includes recommendations that would reduce the risk of such use; for	
	example, the labeling might include recommendations against: use in any	
	surgical setting or whe	re significant exposure to liquid, bodily or other
	· · ·	·

- hazardous fluids, may be expected; use in a clinical setting where the infection risk level through inhalation exposure is high; and use in the presence of a high intensity heat source or flammable gas; or as an alternative example, recommendations for use only by the general public; and
- 3. The product is not labeled in such a manner that would misrepresent the product's intended use; for example, the labeling should not state or imply that the product is intended for antimicrobial or antiviral protection or related uses or is for use such as infection prevention or reduction, nor should it be used for particulate filtration.

For conditions of authorization for manufacturers and distributors, including conditions related to advertising and promotion, see pages 4-6 of Letter of Authorization.

4/18/2020

# Manufacturers of Face Shields

Face shields for use by HCP as PPE are authorized under this EUA when they are intended for use by HCP as PPE in healthcare settings in accordance with CDC recommendations to cover the front and sides of the face and provide barrier protection and meet the following requirements:

- A. The product is labeled accurately to describe the product as a face shield for medical purposes and includes a list of the body contacting materials (which does not include any drugs or biologics);
- B. The product is not integrated with any other article of PPE such as a face mask, but rather is for use as a standalone face shield.
- C. The product includes labeling that describes the product as intended for either a single-user, single use, or for multiple uses by the same user, and includes instructions for recommended cleaning and/or disinfection materials and processes, if applicable.
- D. The face shield does not contain any materials that will cause flammability, or the product meets Class I or Class II flammability requirement per 16 CFR 1610 (unless labeled with a recommendation against use in the presence of high intensity heat source or flammable gas);
- E. The product is not intended for any use that would create an undue risk in light of the public health emergency; for example, the labeling does not state that use of the authorized face shield alone will prevent infection from microbes or viruses, or that it is effective against radiation protection. As indicated in Section I, face shields authorized by this EUA may be effective at preventing HCP exposure to certain particulates during face shield shortages by providing minimal or low barrier HCP protection to the wearer during COVID-19. All manufacturers are reminded that they must comply with all Conditions of Authorization, including those relating to advertising and promotion in Section IV of this letter.

Manufacturers of authorized face shields do not need to take any action, other than complying with the Conditions of Authorization (Section IV) in this letter of authorization to be an authorized face shield under this EUA if they are within the 4/09/2020 | Scope of Authorization (Section II) of this EUA.

# <u>Manufacturers of Gowns</u> <u>and Other Apparel</u>

Authorizes limited use of certain gowns and other apparel for use by Health Care Professionals (HCP) as PPE in healthcare settings in accordance with CDC recommendations to protect both HCP and patients from the transfer of COVID-19 in low or minimal risk level situations to prevent the spread of COVID-19.

Authorized gowns and other apparel:

- Conductive shoe and shoe cover
- Operating-room shoes
- Surgical apparel accessory
- Non-surgical isolation gown
- Operating-room shoe cover
- Surgical helmet
- Surgical cap

# Manufacturers of

5/22/2020

Protective Barrier
Enclosures

Currently, there are no FDA-cleared or approved barrier protection devices that are available for use by HCPs when caring for or performing medical procedures on patients who are known or suspected to have COVID-19 in healthcare settings to prevent HCP exposure to pathogenic biological airborne particulates.

A protective barrier enclosure is a transparent device designed to cover a patient's head and upper body that incorporates one or more ports through which the HCP's hands are passed to perform medical procedures. Protective barrier enclosures are authorized under this EUA when they are intended for use by HCPs when caring for or performing medical procedures on patients who are known or suspected to have COVID-19 in healthcare settings to prevent HCP exposure to pathogenic biological airborne particulates by providing an extra layer of barrier protection in addition to PPE and meet the following requirements:

- 1. The product is labeled accurately to describe the product as a protective barrier enclosure that provides an extra layer of barrier protection in addition to PPE and includes a list of the body contacting materials (which does not include any drugs, biologics, antimicrobial agents, or nanoparticles).
- 2. The product includes labeling that clearly states that the product is not intended to replace PPE.
- 3. The product includes labeling that clearly describes the instructions for use, including instructions for the HCP to assess patient status prior to device use, instructions on removal of the product if it impedes patient care or communication, and specific precautions for the use on certain patients.
- 4. The product must be made with transparent materials to provide a clear, unobstructed view of the procedure field.

- 5. The product does not include fans, air filters, or other features and is not intended to generate negative pressure.
- 6. The product includes labeling that describes the product as intended for either single use or for multiple uses; if a protective barrier enclosure is intended for multiple uses, the device labeling must include instructions for recommended thorough cleaning and response with an additional layer of barrier protection may be helpful in order to reduce the risk of transmission of illness in HCP and increase their availability to provide care to affected patients or those suspected of having COVID-19. Page 4 Protective Barrier Enclosures disinfection methods using a compatible EPA-registered hospital disinfectant from the EPA List N: Disinfectants for use against CoV-2.
- 7. The product does not contain or combine any materials that will cause flammability, or the product meets Class I or Class II flammability requirement per 16 CFR 1610 (unless labeled with a recommendation against use in the presence of high intensity heat source or flammable gas).
- 8. The product is not labeled in such a manner that would misrepresent the product's intended use; for example, the labeling should not state or imply that the authorized product is intended for any other medical purposes, such as airway management, the labeling should not state or imply that use of the authorized product alone will prevent infection from or transmission of microbes or viruses, or that it is effective protection against radiation.

In addition, the authorized products must be accompanied by the following information pertaining to the emergency use, which are authorized to be made available to healthcare providers and patients:

5/01/2020

- Fact Sheet for Healthcare Personnel
- Fact Sheet for Patients

#### **RESPIRATORS**

CDC

National Institute for
Occupational Safety and
Health (NIOSH)-Approved Air
Purifying Respirators for Use
in Health Care Settings
During Response to the
COVID-19 Public Health
Emergency

Decontaminates compatible N95 or N95equivalent respirators for single user reuse by healthcare personnel to prevent exposure to airborne particulates when there are insufficient supplies of N95 respirators.

- Non-powered air-purifying particulate Filtering facepiece respirators (FFRs) and reusable respirators such as elastomeric half and full faced facepiece respirators, approved by NIOSH and listed on the NIOSH Certified Equipment list (CEL) for non-powered air purifying respirators with particulate protection;
- Other powered air purifying respirators (PAPRs) approved by NIOSH, and that are listed on the NIOSH CEL for PAPRs with particulate protection;

- FFRs that were NIOSH-approved but have since passed the manufacturers' recommended shelf-life, are not damaged, and have been held in accordance with manufacturers' storage conditions in strategic stockpiles; and,
- Any authorized respirator that has been decontaminated pursuant to the terms and conditions of an authorized decontamination system.

Manufacturers and other Stakeholders – Certain Imported Filtering Facepiece Respirators Imported, Non-NIOSH-Approved Disposable Filtering Facepiece Respirators

- Products from the following countries: Australia, Brazil, Europe, Japan, South Korea, and Mexico; and/or
- Products authorized in the following regulatory jurisdictions: European CE Mark, Australia Register of Therapeutic Goods (ARTG) Certificate of Inclusion, Health Canada License, or Japan Pharmaceuticals and Medical Device (PMDA)/Ministry of Health and Labour and Welfare (MHLW)

This EUA authorizes certain respirators, including ones that have used a specific decontamination system, to be used in health care settings by healthcare personnel in accordance with CDC's recommendations. Authorized Respirators are listed in Exhibit 1 and listed below.

3/28/2020

# Authorized Imported, Non-NIOSH Approved Respirators

- 3M, Model 8205, Manufactured in Japan
- 3M, Model 8822, Manufactured in South Korea
- 3M, Model 9320+, Manufactured in UK, Singapore, Turkey
- 3M, Model 9322+, Manufactured in UK, Singapore, Turkey
- Dromex, Model 1020, Manufactured in South Africa

Manufacturers of Imported, Non-NIOSH-Approved Disposable Respirators Made in China and other Stakeholders Imported, Non-NIOSH-Approved Disposable Respirators Made in China This EUA allows disposable non-NIOSH-approved respirators manufactured in China that meet one of the following criteria to be eligible for authorization after completing a verification process:

1. Manufactured by an entity that holds one or more NIOSH approvals for other models of FFRs produced in accordance with the applicable standards of authorization in other countries that can be verified by 8 FDA; or, 2. It has a regulatory authorization under a jurisdiction other

<i>Opaulea Julie 15, 2020</i>	
	than China that can be authenticated and verified by FDA; or
4/3/2020 Amended 5/07/2020	The EUA also authorizes respirators listed in Appendix A (also listed below) that have been decontaminated pursuant to the terms and conditions of an authorized decontamination system.

Authorized Imported, Non-NIOSH Approved Respirators Manufactured in China Manufacturer, Model, Location of Manufacturing

- 3M, 9001, 9002, 9501, 9501+, 9501V+, 9502, 9502+, 9502V+, 9505+, 9541, 9541V, 9542, 9542V, 9552, 9552V, Made in China.
- Allmed Medical Products Co., Ltd., LP220002, Made in China
- AOK Tooling Ltd. (aka Shenzhonghai Medical), 20130040, 20130045A, 20180021, 20130038, 20190019, Made in China.
- BEIJING TOPNEW IMPORT & EXPORT CO., LTD., ZY95, Made in China.
- Bei Bei Safety Co Ltd., B702, B702V, B704, B704V, Made in China.
- BYD Precision Manufacture Co. Ltd., BYD KN95 Particulate Respirator (Model Number DG3101), Made in China.
- Chengde Technology Co. KN95 (PM2.5) Protective Mask, Made in China.
- Chongqing Zisun (Zaisheng) Technology Corp., Ltd., ZS-ZD-FJ-1, ZS-ZD-WJ-1, Made in China.
- Dongguan Arun Industrial Co., LTD. KN95 N9, Made in China.
- Dongguan Sengtor Plastics Products Co., Ltd., 20182140615 Folded, Made in China.
- ESound Medical Device Co., Ltd. 20182140615 Folded, Made in China.
- Guangdong KINGFA SCI. & TECH. Co. Ltd. KF-A F01, Made in China
- Guangdong Yidao Medical, YD-002, Made in China.
- Guangzhou Harley Commodity Company Limited, L-103V, KN95, Made in China.
- Guangzhou Powecom Labor Insurance Supplies Co., LTD. KN95, Made in China.
- HANGZHOU FILTECH INTELLIGENT CO., LTD. Filtech Face Mask Model F860. Made in China.
- Hangzhou San Qiang Safety Protection Products Co., Ltd. 9420 (FFP2), 9420V (FFP2), 9480 (FFP2), 9480V (FFP2), 9980V (FFP3), 9920V (FFP3), Made in China.
- HeiQ Materials AG, HVP-FFP2-01, Made in China.
- Henan Yadu Industrial Co., Ltd., Flat Fold, Made in China.
- Hubei Huaqiang High-Tech Co., Ltd., Flat Fold (Earloop) Non-Sterile, Made in China.
- Jiande Chaomei Daily Chemicals Co. F-Y3-A. Made in China.
- Orich Medical Equipment (Tianjin) Co., Ltd., N95 Folded Form (Non-sterile), Made in China.
- Qingdao Miuton Medical Co., Ltd. Steroscopic type, ear worn KN95 Protective Mask, Made in China.
- Qingdao Huaren Medical Product Co., Ltd. HRKFAM, HRKFBM, Made in China.
- Raxwell Industrial Technology (Shanghai) Co., Ltd, RX9501, Made in China.
- Rizhao Saniqi Medical & Health Articles Co., Ltd. RIZ100CVb, 3Q KN95, 3Q FFP2 NR, RIZQ100Sb, 3Q KN95 9505, Made in China.
- Shandong Haidike Medical Products Co, Ltd. N95-V1, Made in China.
- Shanghai Dasheng Health Products Manufacture Company, Ltd., DTC3X-1, DTC3C-2, DTC3X-3, DTC3B-1, Made in China.
- Shanghai Gangkai Purifying Products Co. Ltd, 8012, 8013, Made in China.

- Shanghai Yunqing Industrial Co., Ltd. YQD95 KN95, Made in China.
- Shangxian Minimal Invasive Inc., CD9501, Made in China.
- Shenyang Shengshi Medical Technology Co., Ltd.
- Sure-On Industries Ltd. 210-KN95. Made in China.
- Suzhou Bolisi Medical Technology Co., Ltd., BS-9501L, BS-9501FL, BS-9502C, BS-9502FC, Made in China.
- Suzhou Sanical Protective Product Manufacturing Co., Ltd., Model 8015, Model 9015. Made in China.
- Tengfei Tech. Co. Ltd., TF-9006, Made in China.
- Weini Technology Development Co., Ltd. FFP2 NR E-300, FFP NR E-680, FFP2 NR 952, FFP2 NR F-820, Made in China.
- ZHEJIANG LILY UNDERWEAR CO., LTD., FM0201-966. Made in China.
- Zhende Medical Co. Ltd., N9501F, Made in China.

### **VENTILATORS**

Manufacturers and	Eligible products are	Authorizes the use of these products if they meet
other stakeholders	new/modified ventilators,	specific criteria for safety performance, and
	anesthesia gas machines	<u>labeling</u> , (listed in Appendix B) and available <u>here</u>
	modified for use as	and listed below:
	ventilators, and positive	
	pressure breathing devices	
	modified for use as	
	ventilators (collectively	
	referred to as "ventilators"),	
	ventilator tubing connectors,	
3/24/2020	and ventilator accessories.	

### Authorized Ventilators:

Manufacturer, Product Name, (Date of Authorization)

**Device** *Description/Intended Use* 

- Beijing Aeonmed Co, Ltd. VG70 ventilator (3/25/2020)
   Critical care ventilators for mechanical ventilation of patients in ICU
- Shenzen Mindray Biomedical Electronics, Mindray SV300/SV600/S800 ventilators (3/28/2020)
   Critical care ventilator intended to provide ventilation assistance and breaking support for adult, pediatric and infant patients
- Vyaire Medical Inc. LTV2 model 2150 (3/28/2020)

  Critical care ventilator that are intended to provide continuous or intermittent ventilatory support for the care of the individuals who require mechanical ventilation
- RESMED, Stellar 150 (3/30/2020)

  Ventilator, Continuous, Minimal Ventilatory Support, Facility Use. The Stellar 150 is intended to provide ventilation for non-dependent spontaneously breathing adult and pediatric patients (30 lb/13 kg and above) with respiratory insufficiency, or respiratory failure, with or without obstructive sleep apnea.

  The device is for invasive use (with the use of the ResMed Leak Valve)
- RESMED, Lumis 150 VPAP ST (3/30/2020 Amended 4/17/2020)

  Ventilator, Continuous, Minimal Ventilatory Support, Facility Use. The ResMed Lumis 150 VPAP ST devices are indicated to provide non-invasive ventilation for patients weighing more than 30 lbs (13)

kg), or more than 66 lbs (30kg) in iVAPS mode, with respiratory insufficiency or obstructive sleep apnea (OSA). They are intended for home and hospital use

• RESMED, GA ST (3/31/2020)

Ventilator, Continuous, Minimal Ventilatory Support for patients weighing more than 44lbs., Facility Use

• RESMED, Flexo Bi Level ST (3/31/2020)

Ventilator, Continuous, Minimal Ventilatory Support, Facility Use

• RESMED, AirCurve ST (3/31/2020 Amended 4/17/2020)

Ventilatory, Continuous, Minimal Ventilatory Support for patients weighing more than 66lbs, Facility Use

Amsino, YUWELL YH-730 Bi-level PAP and YH-830 Bi-level Pap (3/31/2020)

Ventilator for patients weighing more than 66lbs, Non-Continuous

• Inovytec, Ventway Sparrow (3/31/2020)

Ventilator, Continuous for pediatric and adult patients

• Philips Respironics, VX850 Ventilator (4/1/2020)

Critical Care Ventilator for pediatric (infants) and adults

• BMC Medical CO. LTD. Luna G3 BPAP 25A-LG3700 (4/2/2020)

Ventilator, continuous, minimal ventilatory support for adult use, facility use

• BMC Medical CO. LTD. Y-30 T (4/2/2020)

Ventilator, continuous, minimal ventilatory support for adult patients, facility use

• Dragerwerk AG & CO. KGaA, Evita V800 and Evita V600 (4/2/2020)

Critical Care Ventilator for adults, adolescents, children, infants and neonates

Dragerwerk AG & CO. KGaA, Babylog VN800 and VN600. (4/3/2020)

Critical Care Ventilator intended for neonates and pediatric patients

• GE Healthcare, pNeuton Model, A-E Ventilator (4/3/2020)

Ventilator, Continuous, Facility Use

• Covidien LLC, Puritan Bennett 560 Ventilator System (4/5/2020)

Ventilator, Continuous for adult and pediatric patients

• CoLabs. COVID Ventilator (4/6/2020)

Emergency Ventilator for adult patients

• MEKICS Co., Ltd., MTV1000 Ventilator (4/6/2020)

Ventilator, Continuous for use on pediatric and adult patients

• Dragerwerk AG & Co. KGaA, Atlan A350 and Atlan A350XL (4/7/2020)

Gas-Machine, Anesthesia intended for anesthetizing adults, pediatric patients and neonates

• VenTec Life Systems, V+Pro Emergency Ventilator (4/7/2020)

Ventilator for pediatric and adult patients, continuous

• Ambulancetech Co., Ltd. Models 6000S, T5, T7 (4/8/2020)

Emergency transport ventilator, children and adults

• Philips Respironics, E30 ventilator

Ventilator, Continuous, Minimal Ventilatory Support, facility use

• Incoba, LLC., Apogee (4/8/2020)

Oxygen Conserver intended as a delivery device for medical grade oxygen from high-pressure oxygen cylinders. Ambulatory device for use in hospital, healthcare facilities, or home care environments.

• SecondBreath LLC, Pneumatic Resuscitator device (4/13/2020)

Emergency Resuscitator

• University of Minnesota Medical School and Boston Scientific Corporation, Coventor Adult Manual Resuscitator Compressor (4/14/2020)

Emergency Resuscitator

• Umbulizer, UMV-001 EUA (4/14/2020)

Emergency Resuscitator

• Hillrom, MetaNeb 4 (4/16/2020)

Intermittent Positive Pressure Breathing Device for patients 5 years old and above whom can follow verbal instructions in hospitals, subacute and nursing facilities, physician offices, clinics and home settings.

• Spiro Devices, LLC. Spiro Wave (4/17/2020)

Emergency Resuscitator to support adults when Positive Pressure Ventilation (PPV) is required to manage Acute Respiratory Failure

• RESMED. AirCurve 10 ST-A (4/17/2020)

Ventilator, Continuous, minimal ventilatory support for facility use in patients weighting more than 30lbs

• PVA, PREVENT (4/17/2020)

Emergency Resuscitator for emergency resuscitation with appropriate critical care monitoring on adult patients weighing more than 66 lbs

• 3B Medical Inc. Luna G3 B30VT (4/20/2020)

Ventilator, Continuous Minimal Ventilatory Support

• Resvent, iBreeze PAP (4/20/2020)

Ventilator, Continuous, Minimal Ventilatory Support, Facility Use

Virgin Orbit, Virgin Orbit Resuscitator (4/22/2020 Amended 4/23/2020)
 Emergency Resuscitator

• Amisino International Inc's, YUWELL YH-725 (4/23/2020)

Ventilator, Non-Continuous

• AutoMedX Inc., SAVe II Series Ventilator (4/24/2020)

Powered emergency Ventilator

• SLS Medical Technology Corp. Ltd., CP101/CP101S Series (4/24/2020)

Ventilator, Non-Continuous

• Zhehiang LifeMed Technology Co., Ltd., LA Series Ventilators LA20C, LA20A, LA20B, LA25B (4/24/2020) Ventilator, Non-Continuous

• Resvent Medical Technology CO., Ltd's, iBreeze 20STA device (4/27/2020)

Ventilator, Non-Continuous

Shenzhen Yamind Medical Tech, CPAP Devices: DM28-20C-G; Auto CPAP Devices: DM28-20A-W, DM28-20A-WP; BiPAP Devices: DM28-20S-G, DM28-20SA-G, DM28-20ST-G, DM28-25S-B, DM28-25SA-BP, DM28-25ST-BP, DM28-30ST-BP, DM28-30ST-BP, DM28-30STA-BP (4/28/20) Ventilator, Non-Continuous

• NASA Jet Propulsion Laboratory, VITAL Ventilator (4/30/2020) Emergency ventilator

Venti-Now, Venti-Now Resuscitator Model JM-P2020A (4/30/2020)
 Emergency Resuscitator

• Wilcox Industries Corp., Wilcox PATRIOT SAVR (5/1/2020) Emergency Ventilator

• Elamaster S.p.A. Techolgie Elettroiche, Mechanical Ventilator (5/1/2020)

Emergency Ventilator

- BMC Medical CO., LTD., China., Luna G3 BPAP S/T-LG3800-G3 B30VT (5/2/2020)
   Ventilator, Continuous, Minimal Ventilatory Support
- ZIBO ZHONGXUN MEDICAL EQUIPMENT CO. LTD., ZXH-550 (5/2/2020) Emergency Ventilator
- JIUXIN MEDICAL, JIXI H-100 (5/2/2020) Emergency Ventilator
- Vayu Global Health Innovations, Vayu bubble Continuous Positive Airway Pressure Circuit ('Vayu BCPAP') (5/5/2020)

Continuous Positive Airway Pressure Circuit

- Hunan Beyond Medical Technology Co., Ltd. BEYOND C20A CPAP (5/6/2020)
   Ventilator Continuous Minimal Ventilatory Support
- Hunan Beyond Medical Technology Co., Ltd. BEYOND B30P BiPAP (5/6/2020) Ventilator Continuous Minimal Ventilatory Support
- Guangzhou Hypnus Healthcare Co., Ltd. Hypnus ST730. (5/6/2020) Ventilator Continuous Minimal Ventilatory Support
- AutoMedX Inc. SAVe II+ (M50016, M50017) (5/7/2020) Powered Emergency Resuscitator
- Taiyuan Shanghai Medical, Fabius Plus / Fabius Plus XL (5/8/2020) Gas Machine, Anesthesia
- Somnetics International, Inc., Transcend 3 BiPAP (5/8/2020) Ventilator, Non-Continuous
- Lanick Med Systems LLC., Lyra x1 and Lyra x2 Ventilators (5/12/2020) Ventilator, Non-Continuous, Facility Use
- CMI Health Beijing Aeonmed Shangrila510S (5/15/2020) Emergency Transport Ventilator
- SysMed (China) Co., Ltd., VM series-DPAP20 Plus, DPAP25 Plus, DPAP 25 Pro, DPAP 30 Pro (5/18/2020)

Ventilator, Continuous, Minimal Ventilatory Support

- SysMed (China) Co., Ltd., Resware BI 20 S, Resware BI Auto S, Resware BI 25 S/T, Resware BI 30 S/T.
   ZiZ Auto, Aurora Bi-Level S, Aurora Bi-Level S/T, Bi-Level Auto S (5/20/2020)
   Ventilator, Continuous, Minimal Ventilatory Support
- Guangzhou Hypnus Healthcare Co., Ltd. BA825W, BA825, ST830W and ST830 (5/22/20202)
   Ventilator, Continuous, Minimal Ventilatory Support
- Origin Medical Devices, Panther 5 Model P5DLVENT (5/22/2020) Ventilator, Continuous, Facility Use
- NASA Jet Propulsion Laboratory, VITAL Compressor (6/1/2020)
   Emergency Ventilator
- Fitbit, Fitbit Flow (6/1/20202) Emergency Resuscitator
- BioMedInnovations, LLC. SuppleVent (6/8/2020) Emergency Ventilator
- Nanotronics Imaging, Inc. nHale BiPAP device (6/9/2020)

Ventilator, Continuous, Minimal Ventilatory Support

Enexor BioEnergy, LLC., X-VENT Emergency Ventilator (6/10/2020)
 Emergency Ventilator

# **Authorized Ventilator Tubing Connectors**

Manufacturer, Product Name, (Date of Authorization)

- Prisma Health, Ventilation Expansion Splitter (VESper) (3/25/2020)
   VESper allows multiple patients to be treated by a single ventilator
- Vent Multiplexor, LLC., Vent Multiplexor (4/15/2020)
   Dual patient circuit connector that is intended to provide temporary rescue mechanical ventilation for dual patient ventilation until an additional ventilator is available
- MakeMedical, VentMI (4/19/2020)
   Dual Patient Circuit Connector
- Northwell Health, Inc. Northwell 3D Printed BiPAP Adaptor (4/29/2020) Ventilator Tubing Connector
- Formlabs Inc., Formlabs 3D Printed BiPAP Adaptor (4/29/2020) Ventilator Tubing Connector
- Covidien LLC., DAR Adult Dual Patient Breathing Circuit 301P14429 (5/05/2020) Dual Patient Circuit Connector
- Safe Flight Instrument Corporation, Safe Flight 9100-3 Quad Vent (5/7/2020) Patient Circuit Connector
- Safe Flight Instrument Corporation, Safe Flight 9100-1 Quad Vent (5/7/2020) Patient Circuit Connector
- Stryker Instruments, Flow Control Valve (5/8/2020)

  Patient Circuit Connector
- Valhalla Medical Supply, LLC Single-Use Emergency Ventilator 2-Way Manifold (5/13/2020) Dual Patient Circuit Connector
- Bloom Energy, Ventilator Sharing and Monitoring System (5/29/2020)
   Patient Circuit Connector

### **Authorized Ventilator Accessories**

• SMD Manufacturing, LLC. ReddyPort Mini NIV Access Elbow (4/13/2020)

Mini NIV Access Elbow is intended to provide an interface for application of CPAP or bi-level therapy.

The elbow is for single patient use in the hospital/institutional environment

### Elbow connector for mask

- 3B Medical, Inc., 3B Hi-Flow H80, Respiratory Humidifier (4/14/2020)

  H-80 series humidifier is for the treatment of spontaneously breathing patients who would benefit from receiving high flow warmed and humidified respiratory gases. This device is for patients by prescription in the home or hospital/institutional environment
- Janisys, Janisys CPAP Flow Generator (4/28/2020)
   Positive End Expiratory Pressure Breathing Attachment
- Vincent Medical Manufacturing Co., Ltd., O<sub>2</sub>FLO High Flow Respiratory Humidifier (VUN-001) Respiratory Humidifier (5/20/2020)

Infusion Pumps and Infusion Pump Accessories

opuated faire 13, 2020		
Manufacturers and	The infusion pumps and	Authorizes the use of these products if they meet
other stakeholders	infusion pump accessories	specific criteria for safety, performance, and
	that are eligible for inclusion	labeling. Authorized products can be found in
	under this EUA are those	Appendix A and listed below:
	that are not currently	
	cleared or approved in the	
	U.S. or that are currently	
	cleared in the U.S. but a	
	modification is made to the	
	device that would trigger the	
	requirement that a	
	manufacturer submit a new	
	premarket notification	
5/13/2020	(510(k)) to FDA.	
A. Abania al Influeira Dumana		

Authorized Infusion Pumps:

Manufacturer, Product Name, (Date of Authorization)

Device Description/Intended Use

Infusion Pump Accessories

Manufacturer, Product Name, (Date of Authorization)

Updated through June 15, 2020