Purpose	The Veritor [™] System for Rapid Detection of Respiratory Syncytial Virus (RSV), a moderately complex test under CLIA, is a rapid chromatographic immunoassay used for the direct and qualitative detection of RSV fusion protein from nasopharyngeal (NP) swabs of symptomatic patients.		
Scope	Clinical Laboratory Scientists and Medical Laboratory Technicians. CLIA – Moderately complex		
Policy	This rapid detection of RSV is intended for <i>in vitro</i> diagnostic use only.		
Specimen Sources	Nasopharyngeal (NP) swabs in Universal Transport Medium or Viral Transport Medium (UTM/UVT) are acceptable specimens for this test. [Specimens collected from patients < 20 years of age]		
Specimen Collection	 Collect sample as soon as possible after onset of symptoms. Acceptable specimens for testing with the BD VeritorTM System for Rapid detection of RSV include nasopharyngeal (NP) swab specimens in appropriate transport medium. Specimens obtained early in the course of illness will contain the highest viral titers. 		
Specimen Transport and Storage	 Freshly collected specimens should be processed as soon as possible or within 1 hour. If necessary, specimens may be stored at 2–8 °C for up to 72 hours and then tested at room temperature. After testing, samples should be saved for 3 days at 2-8°C in case the provider requests further testing. Do not centrifuge specimens prior to use, as the removal of cellular material may adversely affect test sensitivity. 		

Specimen Rejection	 Specimen collected using cotton tips, wood swabs Specimens received with discrepant patient record number, date of birth) Unlabeled specimens Specimens other than NP swab Improperly collected or transported specime Samples not in appropriate transport media Specimen from patients ≥ 20 years of age Cancel RSV Rapid Test Call Provider to order HC Order coordination of the second s	 Specimen collected using cotton tips, wood shafts and calcium alginate swabs Specimens received with discrepant patient information (i.e., name, medical record number, date of birth) Unlabeled specimens Specimens other than NP swab Improperly collected or transported specimens Samples not in appropriate transport media (UTM/UVT) Specimen from patients ≥ 20 years of age Cancel RSV Rapid Test Call Provider to order HC Order code: 87631C Influenza A, Influenza B and RSV, Multiplex PCR 			
Kit Reagents	Description	Vendor	Storage		
Kit Keugents	BD Veritor TM System RSV Devices -	Becton Dickinson	Room		
	Laboratory kit (moderately complex) 30 test	Cat. Nos 256042	Temp.		
Materials and Supplies Not Provided	 Timer and Tube Rack UTM- Universal transport medium / UVT- BD Veritor[™] System RSV+ control Swab S No.256061) 	Universal viral transpo Set, 10 pairs swabs (Ca	ort medium atalog		
Materials and Supplies Provided	 The following components are included in the Detection of RSV kit: BD Veritor System RSV Devices: 30 devic RV Reagent C: 30 tubes with 100 μL reage 300 μL Transfer pipette: 30 each RSV Positive Control Swab, 1 each: RSV a with <0.1% sodium azide (preservative) RSV Negative Control Swab, 1 each: (deterwith <0.1% sodium azide (preservative) 	ne BD Veritor System es with reactive strips nt untigen (non-infectious rgent-treated non-infec	for Rapid cell lysate) eted cells		
Equipment	 BD Veritor[™] Plus System Analyzer (Catal BD Veritor[™] InfoScan (optional- Catalog I Note: New Veritor[™] Plus System must be validation 	og No. 256066) No. 256068) ated before use.			

Safety and Precautions	 H302 Harmful if swallowed. H402 Harmful to aquatic life. H412 Harmful to aquatic life with long lasting effects. P273 Avoid release to the environment. P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor /physician if you feel unwell. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. Reagents contain sodium azide, which is harmful if inhaled, swallowed or exposed to skin. Contact with acids produces very toxic gas. If there is contact with skin, wash immediately with plenty of water. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. On disposal, flush with a large volume of water to prevent azide build-up. Wear protective clothing such as laboratory coats, disposable gloves and eye protection when specimens are assaved.
Warning and Precautions	 For in vitro Diagnostic Use. Test results are not meant to be visually determined. All test results must be determined using the BD Veritor System Instrument. The RSV Positive Control Swab and the positive control line on the BD Veritor System for Rapid Detection of RSV device has been prepared from RSV-infected tissue cell culture cells which have been inactivated by detergent treatment and sonication then subsequently tested by bioassay procedures. Pathogenic microorganisms, including hepatitis viruses and Human Immunodeficiency Virus, may be present in clinical specimens. "Standard
	 Precautions"10-13 and institutional guidelines should be followed in handling, storing and disposing of all specimens and all items contaminated with blood and other body fluids. Dispose of used BD Veritor System test devices as biohazardous waste in accordance with federal, state and local requirements. Do not use kit components beyond the expiration date. Do not reuse the BD Veritor System test device. Do not use the kit if the Control RSV Positive Swab and Control RSV Negative Swab do not yield appropriate results. To avoid erroneous results, specimens must be processed as indicated in the
	 assay procedure section. Proper specimen collection, storage and transport are critical to the performance of the test. Specific training or guidance is recommended if operators are not experienced with specimen collection and handling procedures.

Specimen Collection Procedure	Follow specim DOs an	the steps below to properly collect the required nasopharyngeal swab ens. ad DON'Ts of Sample Collection:
	• Do	collect sample as soon as possible after onset of symptoms
	• Do	test sample immediately – within ONE hour of collection
	• BD	recommends flocked swabs.
	• Do	not use cotton tip, wood shaft or calcium alginate swab
	~	Specimen collection
	Step	Action
	1	Use the flexible flocked nylon tip swab to collect the nasopharyngeal
		specimen.
	2	Nasopharyngeal: Insert the swab into one nostril of the patient,
		reaching the surface of the posterior nasopharynx.
	3	Nasopharyngeal:
		Rotate the swab over the surface of the posterior nasopharynx.
	4	Withdraw the swab from the nasal cavity and place it into a transport
		medium. The sample is now ready for processing/testing using the BD Veritor [™] System Kit.

Continued on next page

Before you begin	 Patient specimens, reagents and devices must be at room temperature (15-30° C) before beginning the assay. Check expiration date on each component and outer box before using. Do NOT use any test kit components that are past the expiration date. Make sure that the BD VeritorTM System Reader is powered-on and ready prior to use. Perform a function test using the verification cartridge on the Analyzer.
Quality Control	 Each BD Veritor System RSV device contains both positive and negative internal/procedural controls: The internal positive control validates the immunological integrity of the device, proper reagent function, and assures correct test procedure. The membrane area surrounding test lines functions as a background check on the assay device. These positive and negative internal/procedural controls are evaluated by the BD VeritorTM System Reader after insertion of the BD VeritorTM System test device. The BD VeritorTM System Reader will prompt the operator, should a quality issue occur. Failure of the internal/procedural controls will generate an invalid test result. [Note: The internal controls do not assess proper sample collection techniques.] When the reader displays "CONTROL INVALID" it means that the internal/procedural controls failed. The test or control must be repeated. If the result of repeat testing is still invalid (internal/procedural controls failed), do not release the patient results. Notify the Manager or contact Becton Dickinson technical support at (800) 638-8663. External Positive and Negative Controls: Swab controls (RSV positive and RSV negative) are supplied with each kit. Controls must be run daily or follow IQCP. BD recommends that positive and negative controls be run once for: Each new wit lot #. Each new operator. Each new with local, state and federal regulations or accreditation agencies requirements. If the results of the kit controls are INVALID, DO NOT test patient specimens/release patient results. Notify the Manager or contact Becton Dickinson technical support at (800) 638-8663.

Testing Control Swab Procedure	rol Follow the steps below to perform the Testing Control Swab procedure				
Toccuire		Testing Control Swab			
	Step	Action			
	1	Prepare for Control Swab Testing:			
		For each RSV positive control and negative control swab:			
		 Remove one RV Reagent C tube/tip and one BD Veritor System RSV device from its foil pouch immediately before testing. Label each RV Reagent C tube and BD Veritor System RSV device with each control to be tested. Place the labeled RV Reagent C tube(s) in the designated area of the tube rack. 			
		Tip RV Reagent C Tube/Tip Test Device			
	2	Prepare the Control Swabs:			
		 Remove and discard the cap from the RV Reagent C tube corresponding to the control to be tested. Using the transfer pipette, transfer 300uL of distilled or deionized water to the RV Reagent C tube Insert the Control Swab all the way into the appropriately labeled RV Reagent C tube and vigorously plunge the swab up and down in the fluid for a minimum of 15 seconds. Remove the Control Swab while squeezing the sides of the tube to extract the liquid from the swab. Properly discard the swab in the biohazardous waste. 			
	3	Proceed to Step 3 of the Testing Patient Specimens Procedure block.			

Continued on next page

Testing PatientSpecimensFollow the steps below for testing patient nasopharyngeal swab specimens.Procedure

Testing Patient Specimens			
Step	Action		
1	Prepare for patient testing:		
	 For each patient specimen, remove one RV Reagent C tube/tip and one BD VeritorTM System RSV device from its foil pouch immediately before testing. Label the RV Reagent C tube and device with each patient's name. Place the labeled RV Reagent C tube(s) in the designated area of the tube rack. 		
	Tip RV Reagent C Tube/Tip Test Device		
2	Prepare the patients' nasopharyngeal swab specimens:		
	• Vortex or thoroughly mix NP swabs in transport media. Do not centrifuge.		
	• Remove and discard the cap from the RV Reagent C tube corresponding to the sample to be tested.		
	• Using the transfer pipette, transfer 300 μ L of the specimen into the		
	RV Reagent C tube. Discard pipette after use.		
	15 Seconds		

Testing Patient			
Specimens			
continued			
	Step	Action	
	3	 Press the attached tip firmly onto the RV Reagent C tube containing the processed specimen or control (threading/twisting not required). Vortex or mix thoroughly by swirling or flicking the bottom of the tube 	•
		Run the Test:	
		• Invert the RV Reagent C tube and hold the tube vertically (approximately one inch above the BD Veritor System RSV device sample well).	
		• Holding the RV Reagent C tube at the ridged area, squeeze gently allowing three (3) drops of the processed sample to be dispensed into the sample well of the appropriately labeled BD Veritor System RSV device	
		Note: Squeezing the tube close to the tip may cause leakage.	
		Squeeze here (ridged area) Sample well	

4	Incubate and Turn on the BD Veritor System Reader:	1
	• After adding the sample, allow the test to run for 10 minutes before inserting into the BD Veritor Instrument	
	Note: If running the test under laminar flow hood or in area	
	with heavy ventilation, cover the test device to avoid inconsistent flow.	
Step	Action	
5	Analyze the Results:	I
	• When the test is ready, insert the BD Veritor System RSV device into the BD Veritor Plus System Reader.	
	• Follow the Reader on-screen prompts to complete the procedure and	1
	obtain the test result.	I
	8	

Interpretation of External Controls and Patient Specimen results:					
The BD Veritor TM Plus System Reader must be used for all interpretation of results.					
<u>Testing personne</u>	el should not attempt to interp	o <u>ret assay results direc</u>			
RSV assav device	e.	ruor ¹¹¹¹ Flus System			
Reader Display	Interpretation	Report in Cerner as			
RSV: +	Positive Test for RSV (RSV antigen present)	Positive			
RSV: -	Negative Test for RSV (no antigen detected)	Negative			
INTERNAL CONTROL INVALID	 Test Invalid Repeat the test If result is still Invalid, Do not report patient results. Notify the Manager or contact Becton Dickinson technical support at (800) 638-8663 	Cancel test order using the Cerner cancel message: "Technical Error; Test Not Performed [Under Notes: add reason: Control Invalid]			

	ALWAYS MESSAGE: Please see below for interpretive criteria:
	"Positive" Positive for the presence of RSV antigen.
	"Negative" Presumptive negative for RSV antigen. If clinically indicated, an alternate method of testing may be warranted.
	"Invalid" Results inconclusive. If clinically indicated, an alternate method of testing may be warranted.
	Performance characteristics have not been established for use with patients ≥ 20 years of age and for immunocompromised patients.
7	Document the test results on the Manual Patient Logs and Cerner

- RSV [Positive, Negative] (required)
- dns Analyzer ID [Veritor #1, Veritor #2] (required)
- dns Lot number (optional)
- dns Expiration date (optional)

Reference Negative for RSV Range

LIMITATIONS OF THE PROCEDURE:

- Failure to follow the Test Procedure may adversely affect test performance and/or invalidate the test result.
- The contents of this kit are to be used for the qualitative detection of RSV antigens from NP in appropriate transport media specimens.
- The BD Veritor System for Rapid Detection of RSV is capable of detecting both viable and non-viable RSV particles. The BD Veritor System for Rapid Detection of RSV performance depends on antigen load and may not correlate with other diagnostic methods performed on the same specimen.
- Results from the BD Veritor System for Rapid Detection of RSV test should be correlated with the clinical history, epidemiological data and other data available to the clinician evaluating the patient.
- A false-negative test result may occur if the level of viral antigen in a sample is below the detection limit of the test or if the sample was collected or transported improperly; therefore, a negative test result does not eliminate the possibility of RSV infection, and should be confirmed by viral cell culture or an FDA-cleared RSV molecular assay.
- Positive test results do not rule out co-infections with other pathogens.
- Negative test results are not intended to rule in other non-RSV viral or bacterial infections.
- Positive and negative predictive values are highly dependent on prevalence rates. Positive test results are more likely to represent false positive results during periods of little/no RSV activity when disease prevalence is low. False negative test results are more likely during peak RSV activity when prevalence of disease is high.
- This device has been evaluated for use with human specimen material only.
- Monoclonal antibodies may fail to detect, or detect with less sensitivity, RSV viruses that have undergone minor amino acid changes in the target epitope region.
- The performance of this test has not been evaluated for use in patients without signs and symptoms of respiratory infection.
- The validity of the BD Veritor System for Rapid Detection of RSV test has not been proven for identification/confirmation of tissue culture isolates and should not be used in this capacity.
- Therapeutic anti-RSV monoclonal antibodies may interfere with the BD Veritor System for Rapid Detection of RSV.
- Performance characteristics have not been established for use with patients ≥ 20 years of age and for immunocompromised patients

EXPECTED VALUES

The rate of positivity observed in RSV testing will vary depending on the method of specimen collection, handling/transport system employed, detection method utilized, time of year, age of the patient, geographic location and most importantly, local disease prevalence. In the 2011/2012 clinical trial, the overall prevalence of RSV as determined by viral cell culture for the nasopharyngeal swabs (NPS) in transport media was 24.5% (range of 5.6% to 31.8%). The overall prevalence of RSV as determined by viral cell culture for the nasopharyngeal washes and aspirates (NPWA) was 37.7% (range of 10.5% to 49.6%).

PERFORMANCE CHARACTERISTICS

Explanation of Terms

- P: Positive
- N: Negative
- C.I.: Confidence Interval

Clinical Performance:

Performance characteristics for the BD Veritor System for Rapid Detection of RSV test were established in multi-center clinical studies conducted at five U.S. trial sites during the 2011–2012 respiratory season. A total of 1174 prospectively collected specimens received in the laboratory with an order for respiratory virus testing were enrolled in the study, of which, 26 were noncompliant with the study protocol and one was noncompliant on the viral cell culture reference testing level. Removal of these specimens yields a total of 1147 specimens. One additional specimen had a final undetermined viral cell culture reference result which could not be verified. Removal of this specimen results in a total of 1146 specimens. A total of 1146 were evaluated using the BD Veritor System for Rapid Detection of RSV test and viral cell culture. The prospective specimens consisted of 440 NPWA and 706 NPS in transport media from symptomatic patients. 44.3% of the samples were from females and 55.7% from males. 80% of patients were 2 years and under.

The performance of the BD Veritor System for Rapid Detection of RSV test was compared to an FDA cleared $D^3 Duet^{TM}$ DFA on R-Mix cell culture and is presented in the following tables.

Table 1. Summary of the performance of the BD Veritor System for Rapid Detection of RSV Test compared to viral cell culture by specimen type, all sites.

	V	/iral Cell C	ulture		
Specimen	BD Veritor	Р	Ν	Total	
	Р	153	9*	162	
	N	20	524	544	
NPS	Total	173	533	706	
Reference Method: Viral Cell Culture Sensitivity: 88.4% (95% Cl: 82.8–92.4%) Specificity: 98.3% (95% Cl: 96.8–99.1%)					

*Of the 9 BD Veritor RSV Positive, Viral Cell Culture negative specimens, 6 were positive by FDA cleared Prodesse ProFlu+ molecular assay. **Of the 15 BD Veritor RSV Positive, Viral Cell Culture negative specimens, 8 were positive by FDA cleared Prodesse ProFlu+ molecular assay.

Reproducibility

The reproducibility of the BD Veritor System for Rapid Detection of RSV test was evaluated at three clinical laboratory sites. The reproducibility panel was composed of 12 simulated RSV samples. These included moderate positive samples, low positive samples (near the assay limit of detection), high negative samples (i.e., containing very low concentrations of virus) and negative samples. The panel was tested by two operators at each site for five consecutive days. The results are summarized below.

Reproducibility Results – Percent of RSV Positives					
Sample	Site 1	Site 2	Site 3	Total	
High negative	0% (0/30)	3.3% (1/30)	3.3% (1/30)	2.2% (2/90)	
RSV	(95% Cl: 0–11.3%)	(95% Cl: 0.6–16.7%)	(95% Cl: 0.6–16.7%)	(95% Cl: 0.6–7.7%)	
Low positive	93.3% (28/30)	76.7% (23/30)	93.3% (28/30)	87.8% (79/90)	
RSV	(95% Cl: 78.7–98.2%)	(95% Cl: 59.1–88.2%)	(95% Cl: 78.7–98.2%)	(95% Cl: 79.4–93%)	
Moderate positive	100% (30/30)	100% (30/30)	100% (30/30)	100% (90/90)	
RSV	(95% CI: 88.6–100%)	(95% CI: 88.6–100%)	(95% CI: 88.6–100%)	(95% CI: 95.9–100%)	
Negative	0% (0/30)	0% (0/30)	0% (0/30)	0% (0/90)	
	(95% Cl: 0–11.3%)	(95% Cl: 0–11.3%)	(95% Cl: 0–11.3%)	(95% Cl: 0–4.1%)	

Analytical Studies

Analytical Sensitivity (Limit of Detection)

The limit of detection (LOD) for the BD Veritor System for Rapid Detection of RSV test was established for the following RSV strains The LOD for each strain represents the lowest concentration producing a positivity rate of \geq 95% based on testing 60 to 80 replicates.

Viral Strain	Calculated LOD (TCID ₅₀ /mL)	No. Positive / Total	% Positive
VR-26 (Long Subgroup A)	1.43 x 10 ⁵	57/60	95.0
VR-955 (9320 subgroup B)	3.98 x 10 ⁴	57/60	95.0
VR-1540 (A-2)	1.94 x 10 ³	59/60	98.3
VR-1580 (Washington subgroup B)	1.08 x 10 ⁴	58/60	96.7
VR-1400 (Wild Type subgroup B)	2.96 x 10 ³	76/80	95.0

TCID₅₀/mL = 50% Tissue Culture Infectious Dose

Analytical Specificity (Cross Reactivity)

The BD Veritor System for Rapid Detection of RSV test was evaluated with bacteria and yeast at a target concentration of approximately 10^{6} CFU/mL (CFU – Colony Forming Units) with the exception of *Fusobacterium nucleatum* which was tested at 1.5 X 10⁶. The viruses were evaluated at concentrations of 10^{3} TCID50/mL or greater. Of the microorganisms tested, none showed cross-reactivity in the RSV test.

Bacteriodes fragilis	Neisseria sp. (Neisseria perflaus)
Bordetella pertussis	Neisseria subflava
Candida albicans	Peptostreptococcus anaerobius
Chlamydia pneumoniae	Porphyromonas asaccharolyticus
Corynebacterium diphtherium	Prevotella oralis
Escherichia coli	Propionibacterium acnes
Fusobacterium nucleatum	Proteus mirabilis
Haemophilus influenzae	Pseudomonas aeruginosa
Haemophilus parainfluenzae	Serratia marcescens
Kingella kingae	Staphylococcus aureus
Klebsiella pneumoniae	Staphylococcus epidermidis
Lactobacillus sp.	Streptococcus mutans
<i>Legionella</i> sp.	Streptococcus pneumoniae
Moraxella catarrhalis	Streptococcus pyogenes
Mycobacterium tuberculosis	Streptococcus sp. Group C
Mycoplasma pneumoniae	Streptococcus sp. Group G
Neisseria gonorrhoeae	Streptococcus salivarius
Neisseria meningitidis	Veillonella parvula
Neisseria mucosa	

Adenovirus, type 1
Adenovirus, type 7
Cytomegalovirus
Enterovirus
HSV Type 1
Human Coronavirus OC43
Human metapneumovirus (HMPV-27 A2)
Human Parainfluenza
Influenza A/Brisbane/10/2007 H3N2
Influenza A/California/7/2009 H1N1
Influenza A/Victoria/3/75 H3N2
Influenza B/Brisbane/60/2008
Influenza B/Florida/4/2006
Influenza B/Lee/40
Measles virus
Mumps virus
Rhinovirus

Interfering Substances

Various substances were evaluated with the BD Veritor System for Rapid Detection of RSV test. These substances included whole blood (2%) and various medications. No interference was noted with this assay for any of the substances at the concentrations tested.

Substance	Concentration
4-Acetamidophenol	10 mg/mL
Acetylsalicylic acid	20 mg/mL
Albuterol	0.083 mg/mL
Amantadine Hydrochloride	500 ng/mL
Ayr Saline Nasal Gel	10 mg/mL
Beclomethasone	500 ng/mL
Budesonide	500 ng/mL
Chlorpheniramine maleate	5 mg/mL
Dexamethasone	10 mg/mL
Dextromethorphan	10 mg/mL
Diphenhydramine HCI	5 mg/mL
Fexofenadine	500 ng/mL
FluMist™	1%
Flunisolide	500 ng/mL
Fluticasone	500 ng/mL
Four OTC nasal sprays	10 %
Four OTC throat drops	12.5 %
Guaiacol Glyceryl Ether	20 mg/mL
Homeopathic Allergy Medicine	10 mg/mL

Substance	Concentration
Ibuprofen	10 mg/mL
Loratidine	100 ng/mL
Menthol Throat Lozenges	10 mg/mL
Mometasone	500 ng/mL
Mupirocin	500 ng/mL
Oseltamivir	500 ng/mL
Oxymetazoline	0.05 mg/mL
Phenylephrine	1 mg/mL
Pseudoephedrine HCI	20 mg/mL
Purified Mucin Protein	1 mg/mL
Ribavirin	500 ng/mL
Rimantadine	500 ng/mL
Synagis	4 µg/mL
Tobramycin	500 ng/mL
Triamcinolone	500 ng/mL
Two OTC mouthwashes	5 %
Whole Blood	2%
Zanamivir	1 mg/mL

Controlled Documents	 The following controlled documents support this procedure. RSV Patient log (RSV-020) RSV Quality Control Log (RSV-021) RSV New Reagent Shipment Log (RSV-022) RSV Reagent kit Parallel test log (RSV-023)
Non-Controlled Documents	 The following non-controlled documents support this procedure. BD VeritorTM Plus System Reader Instruction Manual BD VeritorTM System for Rapid Detection for RSV package Insert (2016-05)

end

Reviewed and approved by (for Medical Center Area Approval Only):

SIGNATURE	DATE
Name:	
Operations Director, Area Laboratory	
Name:	
CLIA Laboratory Director	

HISTORY PAGE

Type of Change: New Major, Minor	Description of Change(s)	Quality Systems Leader/Date	Operations Director, Area Laboratory Review/Date	CLIA Laboratory Director Review/Date	Date Change Implemented

Document Number: SCPMG-PPP-0170 **Title:** Procedure Rapid Detection of RSV

Revision: 02

All dates and times are in Pacific Standard Time.

Procedure Rapid Detection of RSV

Change Request

	-	-
Title	Date	Meaning/Reason
ASST DIR REGL LAB		
DIR OPER REGL LAB		
RRL DIR OF LAB SVCS, MIC		
Assistan Director		
RRL VIR Assistant Dir	14 Nov 2017, 09:50:01 AM	Approved
	Title ASST DIR REGL LAB DIR OPER REGL LAB RRL DIR OF LAB SVCS, MIC Assistan Director RRL VIR Assistant Dir	TitleDateASST DIR REGL LABDIR OPER REGL LABRRL DIR OF LAB SVCS, MICAssistan DirectorRRL VIR Assistant Dir14 Nov 2017, 09:50:01 AM

Collaboration

Name/Signature	Title	Date	Meaning/Reason
Jonathan Gullett (A278318)	Physician Dir, Microbiology		
Ruby Hines (K118167)	RRL VIR Assistant Dir	14 Nov 2017, 05:14:33 PM	Complete

Initial Approval

Name/Signature	Title	Date	Meaning/Reason
Ken Van Horn (K660731)	Technical Director Micro	15 Nov 2017, 08:58:00 AM	Approved
Jonathan Gullett (A278318)	Physician Dir, Microbiology	15 Nov 2017, 09:20:35 AM	Approved

Final Approval

Name/Signature	Title	Date	Meaning/Reason
David Quam (P092597)	Rgnl Mg Admn-Pmg Executive	15 Nov 2017, 09:36:28 AM	Approved

Set Effective Date

Name/Signature	Title	Date	Meaning/Reason
Matthew Jones (F754627)	Systems Consultant		
Laura Perry (S533438)	Admin Spec II	17 Nov 2017, 09:51:18 AM	Approved