

Resulting and Archiving *Bordetella* Results

PURPOSE

This procedure provides instructions for resulting and filing *Bordetella* results in LIS.

POLICY STATEMENT

- **Alert value:** Call patient's caregiver with positive results for *B. pertussis* and *B. parapertussis*. Document the name of person called, date and time; refer to the [Laboratory Services](#) web page

ABBREVIATIONS



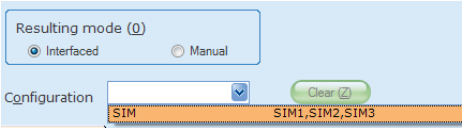

- ASR: analyte-specific reagent
- BICCT: *Bordetella* internal control Ct value
- BORD: *Bordetella*
- BORDP: *Bordetella* PCR
- BPCT: *B. pertussis* Ct value
- BPPCT: *B. parapertussis* Ct value
- BPDNA: *B. pertussis* interpretation
- BPPDN: *B. parapertussis* interpretation
- Ct: crossing threshold
- FDA: US Food and Drug Administration
- IC: internal control
- LIS: laboratory information system
- NA: not applicable
- PCR: polymerase chain reaction
- SAS: Specimen description
- STYP: specimen type code
- WO: worksheet

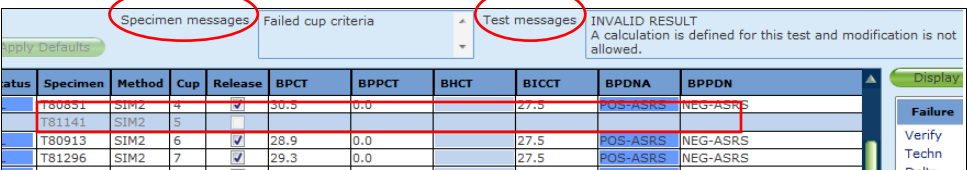
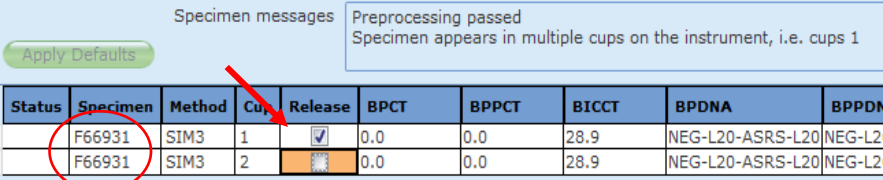

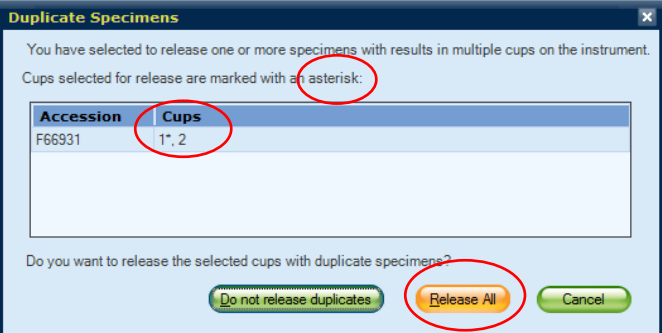
DOCUMENTATION/RECORDS

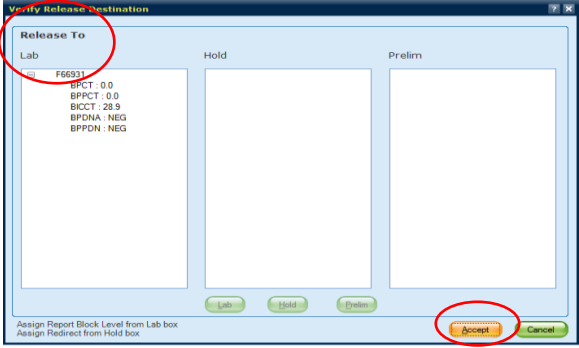
- BORDP Segment Report
- LIS Incomplete worksheet, SmarTerm Function WO, options #1

PROCEDURE A: Follow the activities below for reporting and archiving patient results


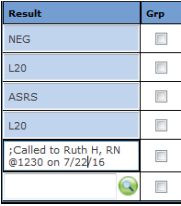
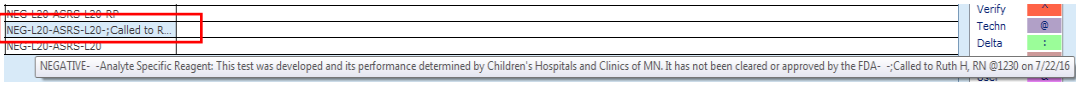
Reporting Patient Results

Activity	Step	Action																	
Export results	1	Export patient test results from the <i>Simplexa</i> instrument to LIS; see MB 6.05 procedure H																	
Computer Entry Molecular Office 	2	Reporting activities are performed in the Molecular Office																	
	3	Enter results in Sunquest Result Entry <table border="1" data-bbox="496 1472 1253 1682"> <thead> <tr> <th>Step</th> <th>Prompt</th> <th>Action/Entry</th> </tr> </thead> <tbody> <tr> <td>a</td> <td>-----</td> <td>Click on the Sunquest icon to log on</td> </tr> <tr> <td>b</td> <td>User</td> <td>CExxxxxx</td> </tr> <tr> <td>c</td> <td>Password</td> <td>xxxxxxx</td> </tr> <tr> <td>d</td> <td>Location</td> <td>R</td> </tr> <tr> <td>e</td> <td>-----</td> <td>Click OK</td> </tr> </tbody> </table>	Step	Prompt	Action/Entry	a	-----	Click on the Sunquest icon to log on	b	User	CExxxxxx	c	Password	xxxxxxx	d	Location	R	e	-----
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d	Location	R																	
e	-----	Click OK																	
	4	Select Result Entry from Menu options 																	
SIM	5	Figure 1: Interface Configuration: Select SIM from drop down box 																	
	6	Click on the  button located in the lower left corner																	

Activity	Step	Action																								
SIM	7	If the page says "Waiting for cups...", the results were not successfully transmitted or the results page was accessed too quickly before the transmission was completed																								
STYP code or missing code Review Messages	8	<p>STYP codes: This specimen was grayed out and not checked for release because there was a problem with the specimen type code.</p> <p>Figure 2: Review messages located on the top and results</p> 																								
SmarTerm	9	<p>Solution: STYP codes can be corrected in <i>Sunquest Order Entry</i> or <i>SmarTerm MEM</i></p> <table border="1" data-bbox="500 787 1344 1134"> <thead> <tr> <th>Step</th> <th>Prompt</th> <th>Action/Entry</th> </tr> </thead> <tbody> <tr> <td>a</td> <td>-----</td> <td>Fixing specimen type codes in SmarTerm</td> </tr> <tr> <td>b</td> <td>FUNCTION</td> <td>MEM</td> </tr> <tr> <td>c</td> <td>WORKSHEET</td> <td>NA : Do not enter for manual entry without calculations</td> </tr> <tr> <td>d</td> <td>TEST</td> <td>BORDP</td> </tr> <tr> <td>e</td> <td>ACCEPT</td> <td>A</td> </tr> <tr> <td>f</td> <td>ACC. NO.</td> <td> <ul style="list-style-type: none"> Add missing code: F66931 Replacing STYP code: M-F66931 (M for modify) </td> </tr> <tr> <td>g</td> <td>SAS</td> <td>Replace existing code or enter missing code SAS : NW NP</td> </tr> </tbody> </table>	Step	Prompt	Action/Entry	a	-----	Fixing specimen type codes in SmarTerm	b	FUNCTION	MEM	c	WORKSHEET	NA : Do not enter for manual entry without calculations	d	TEST	BORDP	e	ACCEPT	A	f	ACC. NO.	<ul style="list-style-type: none"> Add missing code: F66931 Replacing STYP code: M-F66931 (M for modify) 	g	SAS	Replace existing code or enter missing code SAS : NW NP
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Duplicate results	10	<p>Figure 3: If a run is exported more than once, uncheck the duplicate results and release the checked results</p> 																								
	11	Click  button located on the lower left corner																								
	12	<p>Figure 4: Duplicate Specimens</p> 																								
	13	Click Release All																								


Activity	Step	Action	
	14	<p>Figure 5: Verify Release to Lab; click Accept</p> 	
No Problems	15	<p>If</p> <ul style="list-style-type: none"> Specimen box reads <i>Preprocessing passed</i> with no further messages Test box has no messages Sample results are acceptable 	<p>Then</p> <p>Click Save and then Accept (Fig. 5)</p>
		16	<p>Record Control results from BORD Segment Report on BORDP worksheet</p> <ul style="list-style-type: none"> Record Ct values in BPCT, BPPCT and BICCT columns Interpretation: Valid or Invalid
Archive	17	Staple worksheet containing specimen identifiers used during testing and BORD Segment Report together	
	18	Place report in the <i>Bordetella</i> result log book located in the Molecular office	

PROCEDURE B: Follow the activities below for documenting phoned results
Phoned Results, GUI interface

Activity	Step	Action
Alert Values	1	Positive <i>B. pertussis</i> and <i>B. parapertussis</i> are Alert Values that require the result to be called to the patient's caregiver and documented in LIS
 Enter free text	2	<p>Enter phoned results in Result Entry – [SIM]</p> <p>Figure 6: Click on the Interpretation box to expand the result</p> 
	3	At the blinking cursor, type a semicolon in the box to indicate Free Text mode (Fig. 6)
	4	Type the first name and last initial of the person called and date and time (Fig. 6)
	5	Check carefully for entry errors
	6	Close interpretation box
Review	7	<p>Figure 7: Hover over the result with the mouse to review the full description</p> 
	8	Click Save and then Accept on the Verify Release screen (Fig. 5) to file results in LIS



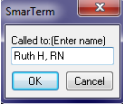

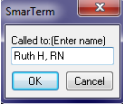

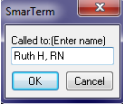
PROCEDURE C: Follow the activities below for result manual entry in function MEM

Manual entry in function MEM

Activity	Step	Action																																										
Manual Entry SmarTerm 	1	If a specimen has failed the cup criteria (Fig. 2) and results do not display, enter results in function MEM																																										
	2	Worksheet BORDP is required for result interpretive calculations																																										
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PROCEDURE D: Follow the activities below for documenting phoned results manually after results have been released in Sunquest *Result Entry* – [SIM]

Phoned Results, Manual entry in function MEM

Activity	Step	Action																																																			
Alert Values Manual Entry SmarTerm 	1	If unable to reach patient’s caregiver regarding an Alert Value , release positive results so they are available in Cerner																																																			
	2	Once patient’s caregiver has been contacted, document phoned results manually in LIS function MEM																																																			
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PROCEDURE E: Follow the activities below for result manual entry in SmarTerm Function MEM
Inhibitory / Abnormal Results (Table 1)






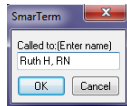
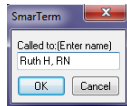
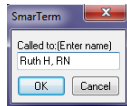
Activity	Step	Action		
Manual Entry Abnormal results SmarTerm 	1	Entering result codes manually; refer to table 1		
		Step	Prompt	Action/Entry
		a	-----	Manual entry in SmarTerm
		b	FUNCTION	MEM
		c	WORKSHEET	NA : Do not enter for manual entry without calculations
		d	TEST	BORDP
		e	ACCEPT	A
		f	ACC. NO.	F66931
		g	SAS	NW
		h	BPCT	0 [enter Ct values from BORD segment report]
		i	BPPCT	0
		j	BICCT	0
		k	BPDNA	UNR-ASRSG
		l	-----	Click 
		m	NAME	Enter name, last initial and credential, i.e., RN or MD 
		n	----	Click OK, date and time stamp will default
		o	BPPDN	UNR-ASRSG
		p	-----	Click 
		q	NAME	Enter name, last initial and credential, i.e., RN
r	ACCEPT	A		

Table 1: Sunquest Result Codes

Result	Sunquest code	Interpretation
Positive <i>B. pertussis</i>	POS-BPHP-ASRSG (MEM) Interface POS-L20-BPHP-ASRS-L20	1. Positive 2. A positive result does not distinguish between <i>B. pertussis</i> and <i>B. holmseii</i> 3. Analyte Specific Reagent: This test was developed and its performance determined by Children’s Hospitals and Clinics of MN. It has not been cleared or approved by the FDA
Positive <i>B. parapertussis</i>	POS -ASRSG (MEM) Interface POS-L20-BPHP-ASRS-L20	1. Positive 2. Analyte Specific Reagent: This test was developed and its performance determined by Children’s Hospitals and Clinics of MN. It has not been cleared or approved by the FDA
Negative	NEG-ASRSG (MEM) Interface NEG-L20-ASRS-L20	1. Negative 2. Analyte Specific Reagent: This test was developed and its performance determined by Children’s Hospitals and Clinics of MN. It has not been cleared or approved by the FDA

Result	Sunquest code	Interpretation
Unresolved Results	UNR - ASRSG Function: MEM Worksheet: NA Test: BORDP	1. Unresolved: This sample is inhibitory to amplification and the results are inconclusive. Consider repeat collection if clinically indicated. 2. ASR / FDA statement 3. Phoned Result Phoned Result [free text name]
Amplification curve abnormal IC not inhibited	EQ – ASRSG Function MEM Worksheet: NA Test: BORDP	1. Equivocal result, suggest repeat specimen 2. ASR / FDA statement 3. Phoned Result Phoned Result [free text name]
Corrected report	Function MEM Worksheet: BORDP Test: BORDP	1. Modify results in function MEM by typing M followed by a hyphen: M-T54966 2. Enter correct numerical result in BPCT, BICCT or BPPCT field(s). Computer will interpret and automatically put in a correction statement 3. Phoned Result Phoned Result [free text name]

PROCEDURE F: Follow the activities below for modifying results in SmarTerm Function MEM
Corrected Report

Activity	Step	Action																																																			
Manual Entry Modifying results SmarTerm 	1	Corrected report: Changing data and interpretation <table border="1"> <thead> <tr> <th>Step</th> <th>Prompt</th> <th>Action/Entry</th> </tr> </thead> <tbody> <tr> <td>a</td> <td>----</td> <td>Manual entry in SmarTerm</td> </tr> <tr> <td>b</td> <td>FUNCTION</td> <td>MEM</td> </tr> <tr> <td>c</td> <td>WORKSHEET</td> <td>BORDP [necessary for interpretive calculations]</td> </tr> <tr> <td>d</td> <td>TEST</td> <td>BORDP</td> </tr> <tr> <td>e</td> <td>ACCEPT</td> <td>A</td> </tr> <tr> <td>f</td> <td>ACC. NO.</td> <td>M – F66931</td> </tr> <tr> <td>g</td> <td>SAS</td> <td>NW</td> </tr> <tr> <td>h</td> <td>BPCT</td> <td>0 – enter correct Ct value below previous value 34 <i>Correction statement will automatically default</i></td> </tr> <tr> <td>i</td> <td>BPPCT</td> <td>0</td> </tr> <tr> <td>j</td> <td>BICCT</td> <td>0</td> </tr> <tr> <td>k</td> <td>BPDNA</td> <td>NEG-L20-ASRS-L20 POS-ASRSG Corrected on 8/16 AT 1432: PREVIOUSLY REPORTED AS NEGATIVE [automatic correction statement]</td> </tr> <tr> <td>l</td> <td>----</td> <td>Click Phoned Result</td> </tr> <tr> <td>m</td> <td>NAME</td> <td>Enter name, last initial and credential, i.e., RN, MD </td> </tr> <tr> <td>n</td> <td>----</td> <td>Click OK, date and time stamp will default</td> </tr> <tr> <td>o</td> <td>BPPDN</td> <td>NEG-L20-ASRS-L20</td> </tr> <tr> <td>p</td> <td>ACCEPT</td> <td>A</td> </tr> </tbody> </table>	Step	Prompt	Action/Entry	a	----	Manual entry in SmarTerm	b	FUNCTION	MEM	c	WORKSHEET	BORDP [necessary for interpretive calculations]	d	TEST	BORDP	e	ACCEPT	A	f	ACC. NO.	M – F66931	g	SAS	NW	h	BPCT	0 – enter correct Ct value below previous value 34 <i>Correction statement will automatically default</i>	i	BPPCT	0	j	BICCT	0	k	BPDNA	NEG-L20-ASRS-L20 POS-ASRSG Corrected on 8/16 AT 1432: PREVIOUSLY REPORTED AS NEGATIVE [automatic correction statement]	l	----	Click Phoned Result	m	NAME	Enter name, last initial and credential, i.e., RN, MD 	n	----	Click OK, date and time stamp will default	o	BPPDN	NEG-L20-ASRS-L20	p	ACCEPT	A
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REFERENCES

1. Laboratory for Windows User's Guide, UD-1599/00-12-GL, Sunquest Information Systems
2. CAP Microbiology Checklist, Section Department: Molecular Diagnostics, MIC.64988, 04.21.2014, College of American pathologists, 325 Waukegan Rd, Northfield, IL 60093

Historical Record

Version	Written/Revised by:	Effective Date:	Summary of Revisions
1	Pat Ackerman	07.20.16	Initial Version