

## HIV Algorithm LIS reporting Reference Guide

RC.CH.CSL.ARC.RG.008.r01

---

### Purpose

This reference guide is to aid in the reporting of discrepant Reactive HIV ( $\geq 1.00$ ) test results within EPIC Beaker (LIS) and Instrument Manager (IM). If the initial result (HIVRO) is Reactive, the result will be held in IM. The specimen needs to be centrifuged for 10 minutes and run in duplicate. If 2 of the 3 results are Reactive, the sample will need confirmation testing on the Bio-rad Geenius. All confirmation testing will be performed at Royal Oak. Follow the guide below to process all HIV results for HIV4G, HSPP and HIVOB orders.

There are some differences in processing HIVOB/HSPP vs HIV4G for the Architect screen which is listed as HIV-1/2 Testing Algorithm in Beaker.

- a. HIVOB/HSPP – Results released from IM to Beaker will post as “Unconfirmed Reactive” for the Architect screen. The HIV Antibody confirmation test will be pending. Techs are required to complete the “Results Called?” box by selecting YES and using the comm log to complete the call. Once the results have been called, the Architect portion of the sample can be SAVED and VERIFIED. Send to Royal Oak core lab for Geenius Testing.
- b. HIV4G – Results released from IM to Beaker will post as “Reactive” for the Architect screen. The HIV Antibody confirmation test will be pending. Results are not required to be called. The screen should not be verified until all Geenius testing is completed, including those requiring a send out test with path review.

The following Geenius scenarios are possible:

1. HIV-1 Positive – Can Verify all results. No path review required.
  - a. HIV1 = Reactive and HIV-2 = Nonreactive
  - b. HIV1 = Reactive and HIV-2 = Indeterminate
2. HIV Antibody Negative – Requires send out to ARUP and path review
  - a. HIV1 = Nonreactive and HIV-2 = Nonreactive
3. HIV-1 Indeterminate –Requires send out to ARUP and path review
  - a. HIV-1 = Indeterminate and HIV-2 = Indeterminate
4. HIV-2 Positive with HIV-1 cross-reactivity – Requires send out to ARUP and MAYO and path review
  - a. HIV-1 = Reactive and HIV-2 = Reactive
5. HIV Positive Untypable – Requires send out to ARUP and MAYO and path review
  - a. HIV-1 = Reactive and HIV-2 = Reactive

## HIV4G Algorithm LIS Reporting Reference Guide

6. HIV Indeterminate – Requires Repeat Geenius Testing. Requires send out to ARUP and MAYO and path review
  - a. HIV-1 = indeterminate and HIV-2 = Indeterminate
7. HIV-2 Indeterminate - Requires Repeat Geenius Testing. Requires send out to ARUP and MAYO and path review
  - a. HIV-1 = Nonreactive and HIV-2 = Indeterminate
8. HIV-2 Positive – Requires send out to MAYO and path review
  - a. HIV-1 = Nonreactive and HIV-2 = Reactive
  - b. HIV-1 = Indeterminate and HIV-2 = Reactive

### HIV4G Reactive Scenarios

**1. Reactive Architect with Confirmed HIV-1 Reactive Geenius:** Architect results will hold in IM. After the sample has completed its 3 runs, and 2 out of 3 results are Reactive, the results can be released from IM. In Beaker, filter the outstanding list by Resulted and Test: HIV-1/2 Algorithm. Double click the sample to go to Result Entry. The Architect Results should be listed but not verified and the confirmation test should be added on. Within result entry, the tech can select the HIV Antibody Confirmation order and enter results. Because the sample is confirmed reactive, the order can be SAVED and VERIFIED. The path review line should stay empty and the test should fall off the outstanding list. See screenshots below.

**In IM, the initial result will be held for verification and there will be instructions to Re-centrifuge and Rerun in Duplicate. The sample will sort off the track and will need to be spun for 10 minutes before placing back on the track.**

Patient ID: 100024672										
Date of Birth:										
Test Worksheet										
Connection Name /	Test Name	Test Code	Result	Units	Result...	Reference ...	Rerun	Test Dilution	Result Date/Time	Error Name(s)
* Held for Verification										
- (none)										
R02-ISR-02	HIV Ag/Ab	HIVRO	4.08	S/CO	F	-	<input type="checkbox"/>	UNDILUTED	9/24/2020 8:37:00 AM	Re-centrifuge and Rerun in Duplicate
- Pending										
- (none)										
DMS-G STATUS, DMS-R ...	HEPSPIN	HEPSPIN					<input type="checkbox"/>			
FT801, FT802, R4001, R4...	HIV Ag/Ab	HIV2					<input type="checkbox"/>			
FT801, FT802, R4001, R4...	HIV Ag/Ab	HIV3					<input type="checkbox"/>			
- Released										
- (none)										
R07-C16-01	Hemolysis	H	2	Index	F		<input type="checkbox"/>	STANDARD	9/24/2020 8:18:33 AM	

**Once the sample has been run in duplicate, if 2/3 results are Reactive, the sample will sort off the track at IOM2 for Geenius testing. All 3 results will be Held for Verification. The interpretation in IM (HIVAB) will show as Reactive.**

Patient ID: 9102726										
Date of Birth: 3/4/1942										
Test Worksheet										
Connection Name /	Test Name	Test Code	Result	Units	Result...	Reference ...	Rerun	Test Dilution	Result Date/Time	Error Name(s)
* Cancelled										
- (none)										
Specimen Management	HEPSPIN	HEPSPIN					<input type="checkbox"/>			
Specimen Management	HIV Reactive Sort	HIVC					<input type="checkbox"/>			
- Held for Verification										
- (none)										
R02-ISR-02	HIV Ag/Ab	HIVRO	4.08	S/CO	F	-	<input type="checkbox"/>	UNDILUTED	9/24/2020 8:37:00 AM	Re-centrifuge and Rerun in Duplicate
R04-ISR-04	HIV Ag/Ab	HIV2	4.04	S/CO			<input type="checkbox"/>		9/24/2020 10:18:52 ...	OTHER TEST(S) HELD FOR REVIEW
R04-ISR-04	HIV Ag/Ab	HIV3	4.18	S/CO			<input type="checkbox"/>		9/24/2020 10:18:52 ...	OTHER TEST(S) HELD FOR REVIEW
R04-ISR-04	HIV Ag/Ab	HIVAB	Reactive				<input type="checkbox"/>		9/24/2020 10:18:52 ...	Final Result Reactive
- Released										
- (none)										
R04-ISR-04	Duplicate	Duplicate	2				<input type="checkbox"/>		9/24/2020 10:18:52 ...	
R07-C16-01	Hemolysis	H	2	Index	F		<input type="checkbox"/>	STANDARD	9/24/2020 8:18:33 AM	

# HIV4G Algorithm LIS Reporting Reference Guide

Results can be released from IM.

Test Worksheet										
Connection Name	Test Name	Test Code	Result	Units	Result...	Reference ...	Rerun	Test Dilution	Result Date/Time	Error Name(s)
Cancelled										
[none]										
Specimen Management	HIV Reactive Sort	HIVC					<input type="checkbox"/>			
Specimen Management	HEPSPIN	HEPSPIN					<input type="checkbox"/>			
Released										
[none]										
R02-ISR-02	HIV Ag/Ab	HIVR0	4.08	S/CO	F	-	<input type="checkbox"/>	UNDILUTED	9/24/2020 8:37:00 AM	Re-centrifuge and Rerun in Duplicate
R04-ISR-04	Duplicate	Duplicate	2				<input type="checkbox"/>		9/24/2020 10:18:52 ...	
R04-ISR-04	HIV Ag/Ab	HIV2	4.04	S/CO			<input type="checkbox"/>		9/24/2020 10:18:52 ...	OTHER TEST(S) HELD FOR REVIEW
R04-ISR-04	HIV Ag/Ab	HIVAB	Reactive				<input type="checkbox"/>		9/24/2020 10:18:52 ...	Final Result Reactive
R04-ISR-04	HIV Ag/Ab	HIV3	4.18	S/CO			<input type="checkbox"/>		9/24/2020 10:18:52 ...	OTHER TEST(S) HELD FOR REVIEW
R07-C16-01	Hemolysis	H	2	Index	F		<input type="checkbox"/>	STANDARD	9/24/2020 8:18:33 AM	

The tech can find the test in Beaker by going to the outstanding list and filtering for the sample. You can get to Result Entry by double clicking the sample from the Outstanding List. Filter the outstanding list by right clicking on the “\*Test” Column and filtering for “HIV-1/2 Testing Algorithm”

In result entry, the confirmation test should have already been added on. And you should be able to see the Architect results posted but not verified. You will not be able to verify the architect results until the Genius testing is complete.



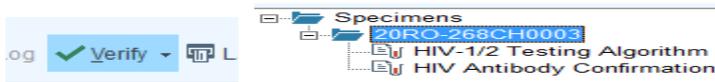
Select the HIV Antibody Confirmation Order. At the bottom of the screen, select EDIT and enter results for lines one, two and three.

# Rslt	Component	Value	A	D	L	R	Units	Ref. Range	Method	C
	HIV-1 Antibody Confirmation	Reactive							MANUAL METHO	<input type="checkbox"/>
	HIV-2 Antibody Confirmation	Nonreactive							MANUAL METHO	<input type="checkbox"/>
	IS QC Present?	Yes							MANUAL METHO	<input type="checkbox"/>
	Path Review?							(none)	MANUAL METHO	<input type="checkbox"/>
	Interpretation (.VHIV)								MANUAL METHO	<input type="checkbox"/>
	Reviewed by:								MANUAL METHO	<input type="checkbox"/>

Once results are entered, click Save.

Because this sample is confirmed Reactive, these results can now be SAVED and then the whole order can be verified. Be sure the path review line is EMPTY. Confirmed HIV1 results do not need to have a pathologist review.

Once the results are saved, a comment will auto populate in the interpretation field. From the top left section in Result Entry, select the specimen order number and select Verify.



There will be a pop up box to review the final results and at the bottom you can Confirm Final. It does not need a pathologist review.

*Printed copies of this document are not considered up-to-date. Please verify current version date with online document.*

# HIV4G Algorithm LIS Reporting Reference Guide

## HIV 1/2 Testing Algorithm

### HIV-1/2 Testing Algorithm (Final result)

Test Name	Result	Ref. Range	Units	Lab
HIV-1 p24 Antigen/HIV-1/2 Antibody Screen	Reactive (A)	Nonreactive		BLRYO

Specimen 20RO-268CH0003. Results verified at 9/24/2020 1059.

### HIV Antibody Confirmation (Final result)

Test Name	Result	Ref. Range	Units	Lab
HIV-1 Confirmation	Reactive			BLRYO
HIV-2 Confirmation	Nonreactive			BLRYO

**Interpretation**  
Positive for HIV-1 antibodies. Laboratory evidence of HIV-1 infection is present. NOTE: HIV vaccine recipients may develop antibodies to HIV, but may and or may not be infected with HIV.

Specimen 20RO-268CH0003. Results verified at 9/24/2020 1059.

This test is complete and should no longer be listed on the outstanding list. 0.5mL of sample should be poured over and frozen if the sample permits.

- 2. Reactive Architect with Not Confirmed Geenius – Send out for HIV1 Required:** Architect results will hold in IM. After the sample has completed its 3 runs and 2 out of 3 results are Reactive, the results can be released from IM. In Beaker, filter the outstanding list by Resulted and Test: HIV-1/2 Algorithm. Double click the sample to go to Result Entry. The Architect results should be listed but not verified and the confirmation test should be added on. Within result entry, the tech can select the HIV Antibody Confirmation order and enter the results. Because the sample is NOT CONFIRMED, it will require a pathologist review and will need to be sent to ARUP for HIV-1 confirmation. The path review line should populate as “Yes” once the results have been SAVED. Do Not Verify. A label for the ARUP – HIV-1 BY QUALITATIVE TMA send out test will print by the Geenius. Follow the HIV flow chart for preparing the send-out sample. See screenshots below.

In IM, the initial result will be held for verification and there will be instructions to Re-centrifuge and Rerun in Duplicate. The sample will sort off the track and will need to be spun for 10 minutes before placing back on the track.

Connection Name /	Test Name	Test Code	Result	Units	Result...	Reference ...	Rerun	Test Dilution	Result Date/Time	Error Name(s)
<b>Held for Verification</b>										
- (none)										
R02-ISR-02	HIV Ag/Ab	HIVRO	3.21	S/CO	F	-	<input type="checkbox"/>	UNDILUTED	9/24/2020 8:37:18 AM	Re-centrifuge and Rerun in Duplicate
<b>Pending</b>										
- (none)										
DMS-G STATUS, DMS-R ...	HEPSPIN	HEPSPIN					<input type="checkbox"/>			
FT801, FT802, R4001, R4...	HIV Ag/Ab	HIV2					<input type="checkbox"/>			
FT801, FT802, R4001, R4...	HIV Ag/Ab	HIV3					<input type="checkbox"/>			
<b>Released</b>										
- (none)										
R10-C16-04	Hemolysis	H	-972	Index	F		<input type="checkbox"/>	STANDARD	9/24/2020 8:06:19 AM	

Once the sample has been run in duplicate, if 2 out of 3 results are Reactive, the sample will sort off the track at IOM2 for Geenius testing. All 3 results will be Held for Verification. The interpretation in IM (HIVAB) will show as Reactive.

Connection Name /	Test Name	Test Code	Result	Units	Result...	Reference ...	Rerun	Test Dilution	Result Date/Time	Error Name(s)
<b>Cancelled</b>										
- (none)										
Specimen Management	HEPSPIN	HEPSPIN					<input type="checkbox"/>			
Specimen Management	HIV Reactive Sort	HIVC					<input type="checkbox"/>			
<b>Held for Verification</b>										
- (none)										
R02-ISR-02	HIV Ag/Ab	HIVRO	3.21	S/CO	F	-	<input type="checkbox"/>	UNDILUTED	9/24/2020 8:37:18 AM	Re-centrifuge and Rerun in Duplicate
R04-ISR-04	HIV Ag/Ab	HIV2	3.27	S/CO	F		<input type="checkbox"/>		9/24/2020 10:19:29 ...	OTHER TEST(S) HELD FOR REVIEW
R04-ISR-04	HIV Ag/Ab	HIV3	3.24	S/CO	F		<input type="checkbox"/>		9/24/2020 10:19:29 ...	OTHER TEST(S) HELD FOR REVIEW
R04-ISR-04	HIV Ag/Ab	HIVAB	Reactive				<input type="checkbox"/>		9/24/2020 10:19:29 ...	Final Result Reactive
<b>Released</b>										
- (none)										
R04-ISR-04	Duplicate	Duplicate	2				<input type="checkbox"/>		9/24/2020 10:19:29 ...	
R10-C16-04	Hemolysis	H	-972	Index	F		<input type="checkbox"/>	STANDARD	9/24/2020 8:06:19 AM	

Printed copies of this document are not considered up-to-date. Please verify current version date with online document.

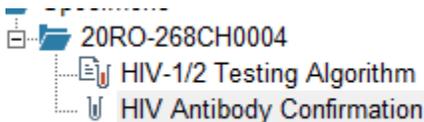
# HIV4G Algorithm LIS Reporting Reference Guide

Results can be released from IM.

<input type="checkbox"/> Complete 100024673 R BEAKEREPIC,CHEMB										Patient ID: 9102726 Date of Birth: 3/4/194	
Test Worksheet											
Connection Name /	Test Name	Test Code	Result	Units	Result...	Reference ...	Rerun	Test Dilution	Result Date/Time	Error Name(s)	
* <input type="checkbox"/>											
Cancelled											
[none]											
Specimen Management	HIV Reactive Sort	HIVC					<input type="checkbox"/>				
Specimen Management	HEPSPIN	HEPSPIN					<input type="checkbox"/>				
Released											
[none]											
R02ISR-02	HIV Ag/Ab	HIVRO	3.21	S/CO	F	.	<input type="checkbox"/>	UNDILUTED	9/24/2020 8:37:18 AM	Re-centrifuge and Rerun in Duplicate	
R04ISR-04	Duplicate	Duplicate	2				<input type="checkbox"/>		9/24/2020 10:19:29 ...		
R04ISR-04	HIV Ag/Ab	HIV2	3.27	S/CO			<input type="checkbox"/>		9/24/2020 10:19:29 ...	OTHER TEST(S) HELD FOR REVIEW	
R04ISR-04	HIV Ag/Ab	HIVAB	Reactive				<input type="checkbox"/>		9/24/2020 10:19:29 ...	Final Result Reactive	
R04ISR-04	HIV Ag/Ab	HIV3	3.24	S/CO			<input type="checkbox"/>		9/24/2020 10:19:29 ...	OTHER TEST(S) HELD FOR REVIEW	
R10-C16-04	Hemolysis	H	-972	Index	F		<input type="checkbox"/>	STANDARD	9/24/2020 8:06:19 AM		

The tech can find the test in Beaker by going to the outstanding list and filtering for the sample. You can get to Result Entry by double clicking the sample from the Outstanding List. Filter the outstanding list by right clicking on the “\*Test” Column and filtering for “HIV-1/2 Testing Algorithm”

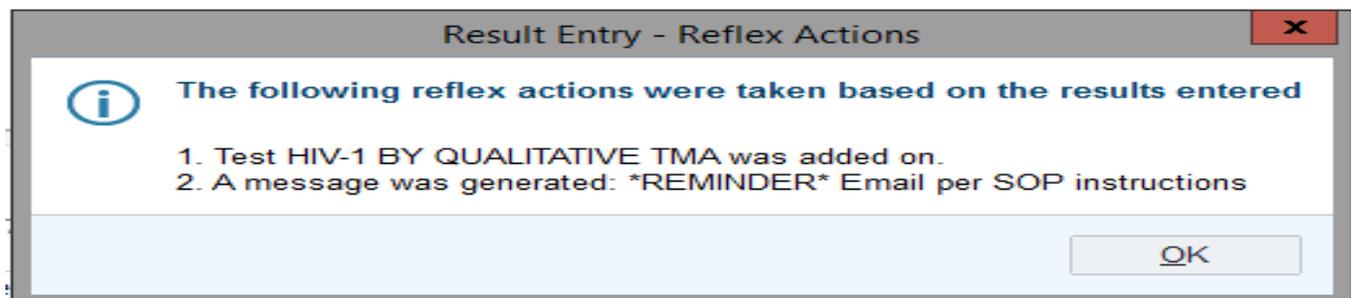
In result entry, the confirmation test should have already been added on. And you should be able to see the Architect results posted but not verified. You will not be able to verify the architect results until the Genius testing is complete.



Select the HIV Antibody Confirmation Order. At the bottom of the screen, select EDIT and enter results for lines one, two and three.

<input type="button" value="Edit"/> <input type="button" value="Save"/> <input type="button" value="Next"/> <input type="button" value="Clear Changes"/> <input type="button" value="Repeat"/> <input type="button" value="Method"/>									
(# Rslt) Component	Value	A	D	L	R	Units	Ref. Range	Method	C
HIV-1 Antibody Confirmation	Nonreactive				▼			MANUAL METHOI	<input type="checkbox"/>
HIV-2 Antibody Confirmation	Nonreactive				▼			MANUAL METHOI	<input type="checkbox"/>
IS QC Present?	Yes							MANUAL METHOI	<input type="checkbox"/>
Path Review?							(none)	MANUAL METHOI	<input type="checkbox"/>
Interpretation (.VHIV)								MANUAL METHOI	<input type="checkbox"/>
Reviewed by:								MANUAL METHOI	<input type="checkbox"/>

Because this sample is NOT CONFIRMED, results need to be SAVED, but not VERIFIED. Once the results are saved, a pop up reminder box will appear stating a send-out test has been added on and a label should print for the ARUP HIV-1 BY QUALITATIVE TMA test.



Printed copies of this document are not considered up-to-date. Please verify current version date with online document.

## HIV4G Algorithm LIS Reporting Reference Guide

Also, the Path Review line has now populated a “Yes” automatically. This is a good indication that the sample needs to be sent out and will need a path review.

Res	Component	Value
1	HIV-1 Antibody Confirmation	Nonreactive
1	HIV-2 Antibody Confirmation	Nonreactive
1	IS QC Present?	Yes
1	Path Review?	Yes
1	Interpretation (.VHIV)	
1	Reviewed by:	
Method: MANUAL METHOD		Last received: 9/

The sample can be taken to send-outs or put in the send-out refrigerator in processing if the send-out lab is closed. Refer back to the Sample Handling of Reactive HIV Samples flow chart to process the test for Send-outs. Be sure to follow instructions for the required information to email to the pathologists. The test will remain on the outstanding list until the path review is complete. 0.5 mL of sample should be poured over and frozen if the sample permits.

3. **Reactive Architect with Not Confirmed Geenius – Send out for HIV2 Required:** Architect results will hold in IM. After the sample has completed its 3 runs and 2 out of 3 results are Reactive, the results can be released from IM. In Beaker, filter the outstanding list by Resulted and Test: HIV-1/2 Algorithm. Double click the sample to go to Result Entry. The Architect results should be listed but not verified and the confirmation test should be added on. Within result entry, the tech can select the HIV Antibody Confirmation order and enter the results. Because the sample is NOT CONFIRMED, it will require a pathologist review and will need to be sent to MAYO for HIV-2 DNA/RNA RT-PCR. The path review line should populate as “Yes” once the results have been SAVED. Do Not Verify. Follow the HIV flow chart for preparing the send-out sample. An EDTA sample is required for the MAYO send-out test. Please follow the screenshots below to process the EDTA sample.

**In IM, the initial result will be held for verification and there will be instruction to Re-centrifuge and Rerun in Duplicate. The sample will sort off the track and will need to be spun for 10 minutes before placing back on the track.**

Connection Name /	Test Name	Test Code	Result	Units	Result...	Reference ...	Rerun	Test Dilution	Result Date/Time	Error Name(s)
* Held for Verification										
▶ (none)										
R02-ISR-02	HIV Ag/Ab	HIVR0	2.46	S/CO	F	.	<input type="checkbox"/>	UNDILUTED	9/24/2020 8:37:36 AM	Re-centrifuge and Rerun in Duplicate
▶ Pending										
(none)										
DMS-G STATUS, DMS-R ...	HEPSPIN	HEPSPIN					<input type="checkbox"/>			
FT801, FT802, R4001, R4...	HIV Ag/Ab	HIV2					<input type="checkbox"/>			
FT801, FT802, R4001, R4...	HIV Ag/Ab	HIV3					<input type="checkbox"/>			
▶ Released										
(none)										
R07-C16-01	Hemolysis	H	31	Index	F		<input type="checkbox"/>	STANDARD	9/24/2020 8:19:09 AM	

*Printed copies of this document are not considered up-to-date. Please verify current version date with online document.*

## HIV4G Algorithm LIS Reporting Reference Guide

Once the sample has been run in duplicate, if 2 out of 3 results are Reactive, the sample will sort off the track at IOM2 for Geenius testing. All 3 results will be Held for Verification. The interpretation in IM (HIVAB) will show as Reactive.

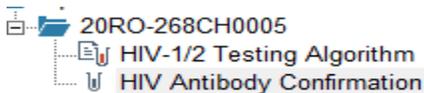
Specimen ID /	Priority	Patient Name	Run Count	Specimen Type	Rack	Patient Name: BEAKEF Patient ID: 9102726 Date of Birth: 3/4/1940					
100024676	R	BEAKEREPI.CHEMB									
Test Worksheet											
Connection Name /	Test Name	Test Code	Result	Units	Result...	Reference ...	Rerun	Test Dilution	Result Date/Time	Error Name(s)	
Cancelled											
(none)											
Specimen Management	HEPSFIN	HEPSFIN					<input type="checkbox"/>				
Specimen Management	HIV Reactive Sort	HIVC					<input type="checkbox"/>				
Held for Verification											
(none)											
R02-ISR-02	HIV Ag/Ab	HIVRO	2.46	S/CO	F	-	<input type="checkbox"/>	UNDILUTED	9/24/2020 8:37:36 AM	Re-centrifuge and Rerun in Duplicate	
R04-ISR-04	HIV Ag/Ab	HIV2	2.55	S/CO			<input type="checkbox"/>		9/24/2020 10:20:06 ...	OTHER TEST(S) HELD FOR REVIEW	
R04-ISR-04	HIV Ag/Ab	HIV3	2.51	S/CO			<input type="checkbox"/>		9/24/2020 10:20:06 ...	OTHER TEST(S) HELD FOR REVIEW	
R04-ISR-04	HIV Ag/Ab	HIVAB	Reactive				<input type="checkbox"/>		9/24/2020 10:20:06 ...	Final Result Reactive	
Released											
(none)											
R04-ISR-04	Duplicate	Duplicate	2				<input type="checkbox"/>		9/24/2020 10:20:06 ...		
R07-C16-01	Hemolysis	H	31	Index	F		<input type="checkbox"/>	STANDARD	9/24/2020 8:19:09 AM		

### Results can be released from IM.

Specimen ID /	Priority	Patient Name	Run Count	Specimen Type	Rack	Patient ID: 9102726 Date of Birth: 3/4/1940					
100024676	R	BEAKEREPI.CHEMB									
Test Worksheet											
Connection Name /	Test Name	Test Code	Result	Units	Result...	Reference ...	Rerun	Test Dilution	Result Date/Time	Error Name(s)	
Cancelled											
(none)											
Specimen Management	HIV Reactive Sort	HIVC					<input type="checkbox"/>				
Specimen Management	HEPSFIN	HEPSFIN					<input type="checkbox"/>				
Released											
(none)											
R02-ISR-02	HIV Ag/Ab	HIVRO	2.46	S/CO	F	-	<input type="checkbox"/>	UNDILUTED	9/24/2020 8:37:36 AM	Re-centrifuge and Rerun in Duplicate	
R04-ISR-04	Duplicate	Duplicate	2				<input type="checkbox"/>		9/24/2020 10:20:06 ...		
R04-ISR-04	HIV Ag/Ab	HIV2	2.55	S/CO			<input type="checkbox"/>		9/24/2020 10:20:06 ...	OTHER TEST(S) HELD FOR REVIEW	
R04-ISR-04	HIV Ag/Ab	HIVAB	Reactive				<input type="checkbox"/>		9/24/2020 10:20:06 ...	Final Result Reactive	
R04-ISR-04	HIV Ag/Ab	HIV3	2.51	S/CO			<input type="checkbox"/>		9/24/2020 10:20:06 ...	OTHER TEST(S) HELD FOR REVIEW	
R07-C16-01	Hemolysis	H	31	Index	F		<input type="checkbox"/>	STANDARD	9/24/2020 8:19:09 AM		

The tech can find the test in Beaker by going to the outstanding list and filtering for the sample. You can get to Result Entry by double clicking the sample from the Outstanding List. Filter the outstanding list by right clicking on the “\*Test” Column and filtering for “HIV-1/2 Testing Algorithm”

In result entry, the confirmation test should have already been added on. And you should be able to see the Architect results posted but not verified. You will not be able to verify the architect results until the Geenius testing is complete.



Select the HIV Antibody Confirmation Order. At the bottom of the screen, select EDIT and enter results for lines one, two and three.

(# Rslt) Component	Value	A	D	L	R	Units	Ref. Range	Method	C
1 HIV-1 Antibody Confirmation	Nonreactive							MANUAL METHOI	<input type="checkbox"/>
2 HIV-2 Antibody Confirmation	Reactive							MANUAL METHOI	<input type="checkbox"/>
3 IS QC Present?	Yes							MANUAL METHOI	<input type="checkbox"/>
4 Path Review?							(none)	MANUAL METHOI	<input type="checkbox"/>
5 Interpretation (.VHIV)								MANUAL METHOI	<input type="checkbox"/>
6 Reviewed by:								MANUAL METHOI	<input type="checkbox"/>

Printed copies of this document are not considered up-to-date. Please verify current version date with online document.

## HIV4G Algorithm LIS Reporting Reference Guide

Because this sample is NOT CONFIRMED, results need to be **SAVED, but not VERIFIED**. Once the results are saved, a pop up reminder box will appear stating a send-out test has been added on for the MAYO test HIV-2 DNA/RNA Qualitative Real-Time PCR. An EDTA tube is required for this send-out. An EDTA tube can be obtained from Hematology or stat lab. If there is no EDTA tube available, the RN will need to be notified to collect.

**X**

**Result Entry - Reflex Actions**

**i** The following reflex actions were taken based on the results entered

1. Test HIV-2 DNA/RNA Qualitative Real-Time PCR was ordered. A specimen was created.
2. A message was generated: \*REMINDER\* The order for HIV-2 DNA/RNA RT-PCR requires an EDTA tube. If no EDTA tube is available, the patient needs to be redrawn. Include this in your email to ALL required per SOP instructions.

OK

If an EDTA tube is available, refer to the following screenshots below to find, collect and receive the order.

Select Patient Station from the top toolbar.  Patient Station

Search by MRN and select the patient to go to their chart.

Select Patient    CSN Lookup/Create Patient    Recent Patient:

Name/MRN:

SSN:

**Search Criteria**  
Name/MRN: 9102726

Match	MRN	Patient Name	Date Of Birth	Age	Legal Sex	Street Address	SSN
80.00	9102726	BEAKEREPIC, CHEMB	3/4/1940	80 yrs	F	124 Any Street, REDFORD MI 484	xxx-

Results loaded: 1



**Beakerepic, Chemb - 9102726**

 Born 3/4/1940  
80 y.o. Female

 124 Any Street  
REDFORD MI 48239

 313-291-1122 (H)

 test@beaumont.org

 Sykes, Elizabeth, MD

Language: English  
Ethnicity: Other  
Race: White or Caucasian



Select    Go Back

*Printed copies of this document are not considered up-to-date. Please verify current version date with online document.*

# HIV4G Algorithm LIS Reporting Reference Guide



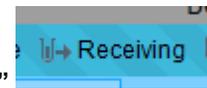
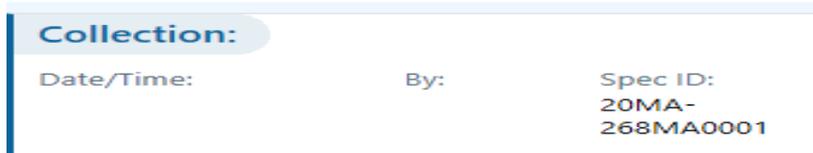
On the top of the patient's page, select Chart Review from the top toolbar and then select



From here you can see the add-on test HIV-2 DNA/RNA Qualitative Real-Time PCR.



If you click on this line, it will open a window on the right hand side of the screen. Here is where you will find the order number for the MAYO send out test. Print the label.



Once you have the order number from the patient's chart, you can now open "Receiving"

Here you can scan the label and also update the collection info in the bottom right corner to match the EDTA tube.

Specimen	Containers	Collector	Patient	MRN	List	Order Dept.	Authorizing Provider	Tests
20MA-268MA0001	20MA-268MA0001.1: Lav EDTA		Beakerepic, Chemb	9102726		RYO LABORATORY	Sykes, Elizabeth, MD	XHIV4G RFLX

Date/Time:   [1] Now

Collector:

Department:

Draw type:  [4] Venipuncture

Type:  Blood

Source:  Blood, Venous

Lab comments:

Apply Defaults

Set Defaults Clear Defaults

Once the specimen is received, it can be taken to send-outs or put in the send-out refrigerator in processing if the send-out lab is closed. Refer back to the Sample Handling of Reactive HIV Samples flow chart to process the test for Send-outs. The test will remain on the outstanding list until the path review is complete. 0.5 mL of sample should be poured over and frozen if the sample permits.

*Printed copies of this document are not considered up-to-date. Please verify current version date with online document.*

## HIV4G Algorithm LIS Reporting Reference Guide

4. **2 out of 3 Results in IM are Nonreactive:** Sometimes, the initial run for HIVRO will be Reactive but after spinning for 10 mins and running in duplicate, the results for HIV2 and HIV3 will be Nonreactive. In IM, the results from HIV2 result will automatically be placed under the HIVRO field and the results will be auto released as Nonreactive. The only requirement of the tech will be to reject the initial Reactive HIVRO result in IM. The results in Beaker should auto verify.

In IM, the initial result will be held for verification and there will be instruction to Re-centrifuge and Rerun in Duplicate. The sample will sort off the track and will need to be spun for 10 minutes before placing back on the track. Once the sample has been run in duplicate, if 2 out of 3 results are Nonreactive, IM will take the nonreactive result from the HIV2 field and place it in the HIVRO field. It will then automatically release the results as Nonreactive and they should auto verify in Beaker.

Connection Name	Test Name	Test Code	Result	Units	Reference Range	Resu...	Rerun	Test Dilution	Result Date/Time	Error Name(s)
Cancelled										
Specimen Management										
HEPSPIN										
HEPSPIN										
Held for Verification										
(none)										
R02-ISR-02	HIV Ag/Ab	HIVRO	3.82	S/CO	-	F	<input type="checkbox"/>	UNDILUTED	6/24/2020 8:48:54 AM	Re-centrifuge and Rerun in Duplicate
Released										
(none)										
R04-ISR-04	HIV Ag/Ab	HIV3	0.12	S/CO			<input type="checkbox"/>		6/24/2020 9:29:12 AM	
R04-ISR-04	Duplicate	Duplicate	2				<input type="checkbox"/>		6/24/2020 9:29:12 AM	
R04-ISR-04	HIV Ag/Ab	HIV2	0.08	S/CO			<input type="checkbox"/>		6/24/2020 9:29:12 AM	
R04-ISR-04	HIV Ag/Ab	HIVRO	0.08				<input type="checkbox"/>		6/24/2020 9:29:12 AM	
DMS-R STATUS	QRY	QRY	HIVRO				<input type="checkbox"/>		6/24/2020 8:17:11 AM	
DMS-R STATUS	QRY	QRY	HIV2\HIV3				<input type="checkbox"/>		6/24/2020 8:55:37 AM	
R04-ISR-04	HIV Ag/Ab	HIVAB	Nonreactive		-		<input type="checkbox"/>		6/24/2020 9:29:12 AM	Final Result NONREACTIVE

The only step for the tech at this point will be to "Reject" the initial HIVRO reactive result. Verify in the released section that a nonreactive result for HIVRO went out.

Connection Name	Test Name	Test Code	Result	Units	Reference Range	Resu...	Rerun	Test Dilution	Result Date/Time	Error Name(s)
Cancelled										
Specimen Management										
HEPSPIN										
HEPSPIN										
Rejected										
(none)										
R02-ISR-02	HIV Ag/Ab	HIVRO	3.82	S/CO	-	F	<input type="checkbox"/>	UNDILUTED	6/24/2020 8:48:54 AM	Re-centrifuge and Rerun in Duplicate
Released										
(none)										
R04-ISR-04	HIV Ag/Ab	HIV3	0.12	S/CO			<input type="checkbox"/>		6/24/2020 9:29:12 AM	
R04-ISR-04	Duplicate	Duplicate	2				<input type="checkbox"/>		6/24/2020 9:29:12 AM	
R04-ISR-04	HIV Ag/Ab	HIV2	0.08	S/CO			<input type="checkbox"/>		6/24/2020 9:29:12 AM	
R04-ISR-04	HIV Ag/Ab	HIVRO	0.08				<input type="checkbox"/>		6/24/2020 9:29:12 AM	
DMS-R STATUS	QRY	QRY	HIVRO				<input type="checkbox"/>		6/24/2020 8:17:11 AM	
DMS-R STATUS	QRY	QRY	HIV2\HIV3				<input type="checkbox"/>		6/24/2020 8:55:37 AM	
R04-ISR-04	HIV Ag/Ab	HIVAB	Nonreactive		-		<input type="checkbox"/>		6/24/2020 9:29:12 AM	Final Result NONREACTIVE

### HIV 1/2 Testing Algorithm

#### HIV-1/2 Testing Algorithm (Final result)

Test Name	Result	Ref. Range	Units	Lab
HIV-1 p24 Antigen/HIV-1/2 Antibody Screen	Nonreactive	Nonreactive		BLRYO

HIV-1 p24 antigen and HIV-1/HIV-2 antibodies were not detected. There is no laboratory evidence of HIV infection. However, if a recent exposure is suspected, recommend repeat testing in 4 weeks.

Specimen 20RO-176CH0002. Results verified at 6/24/2020 0930.

Printed copies of this document are not considered up-to-date. Please verify current version date with online document.

## HIV4G Algorithm LIS Reporting Reference Guide

### Entering Bio-Rad Geenius results:

Reporting fields' descriptions:

HIV-1 Antibody Confirmation	Dropdown Options: Reactive, Nonreactive, or Indeterminate
HIV-2 Antibody Confirmation	Dropdown Options: Reactive, Nonreactive, or Indeterminate
Is QC Present?	Dropdown Options: Yes

If the sample allows, save one labeled 0.5 mL aliquot for Beaumont in the HIV rack in the silver freezer.

Refer to the BioRad Geenius procedure for additional details. RC.CH.CSL.MT.PR.014

---

### Authorized Reviewers

Section Supervisor or MT II

---

*Printed copies of this document are not considered up-to-date. Please verify current version date with online document.*

# HIV4G Algorithm LIS Reporting Reference Guide

## Document Control

Location of Master: **Master electronic file stored on the Beaumont Laboratory server under**

**S:\Automated Chemistry\Document Control Library\start) INDEX and TEMPLATE\CSL Chemistry Stat Lab\ARC- Architect\Master**

**Master printed document stored in the Architect Master Binder.**

**Number of circulating Controlled Copies: 1**

**Location of circulating Controlled Copies: HIV Geenius Binder**

## Document History

<i>Signature</i>	<i>Date</i>	<b>Revision #</b>		<b>Related Documents Reviewed/ Updated</b>
Prepared by: Ashley Hurand, MLS(ACSP) <sup>cm</sup>	09/18/2019	r00		
Approved by: Amber M Macumber, MLS (ASCP) <sup>cm</sup>	09/18/2019	r00		
<b>Reviewed by: (Signature)</b>	<b>Date</b>	<b>Revision #</b>	<b>Modification</b>	<b>Related Documents Reviewed/ Updated</b>
Amber M Macumber, MLS (ASCP) <sup>cm</sup>	09/19/2019			
Ashley Hurand, MLS(ACSP) <sup>cm</sup>	10/29/2020	<b>r01</b>	Updated for Beaker	

*Printed copies of this document are not considered up-to-date. Please verify current version date with online document.*

