

Newborn Screening Quality Assurance Program

PROFICIENCY TESTING PROGRAM FOR ANTI-HIV-1 IN DRIED BLOOD SPOTS

Quarterly Report

Quarter 1

February 2013

INTRODUCTION

The Anti-HIV-1 proficiency testing (PT) panel for Quarter 1, 2013, consisted of five individual-matrix dried-blood spot (DBS) specimens representing a variety of serostatuses. HIV antibody screening and confirmatory tests should identify all HIV-positive specimens, regardless of subtype. Method and laboratory performance are evaluated by challenging participants with specimens representing HIV-negative and positive serostatuses.

On January 14, 2013, we sent the Quarter 1 Anti-HIV-1 panel to 15 domestic and 13 international participants. We received data reports from 25 of the 28 participating laboratories by the designated deadline date. This report is the outcome of data reported for the Quarter 1, 2013, Anti-HIV-1 PT specimens. This quarterly report is distributed to all participants and to program colleagues upon request.

Each participant was asked to analyze the specimens for anti-HIV-1 with the assay schemes they routinely use and to report for each

specimen the screening results along with results from any confirmatory assays performed for presumptive positives. A final interpretation for each specimen must be submitted to receive a grade.

PARTICIPANTS' RESULTS

Table 1 shows the overall frequency of reported reactive, non-reactive, and indeterminate screening results for specimens 11341-11345.

In Part 1 of the report, Table 2 shows the number of laboratories using each screening method/kit both for the primary and secondary screens.

Table 3 shows the summary of screening errors by method.

In Part 2 of the report, Table 4 shows the number of laboratories using each confirmatory method/kit.

Table 5 shows the Reported Frequency of Bands by Western Blot for each of the PT specimens that tested positive for the Anti-HIV-1

screening analysis.

The Quality Assurance Program will ship next quarter's HIV-1 DBS proficiency testing specimens on April 8, 2013. ❖

CONFERENCES AND MEETINGS

20th Conference on Retroviruses and Opportunistic Infections (CROI 2013)
Dates: 03/03/2013 – 03/06/2013
City: Atlanta
State: GA
Country: United States

7th IAS Conference on HIV Pathogenesis, Treatment and Prevention 2013
Dates: 06/30/2013- 07/03/2013
City: Kuala Lumpur
Country: Malaysia

6th International HIV Persistence Workshop
Dates: December 3-6, 2013
City: Miami, FL
Country: United States



Direct inquiries to:
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Quarterly publications for colleagues and participants of the Proficiency Testing Program for Anti-HIV-1 in Dried Blood Spots.

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**Anti-HIV-1 PT Report
Quarter 1, 2013**

TABLE 1: Frequency Distribution: Outcome of Final Interpretations (25 Labs)

Specimen Number	Expected Results	Non- Reactive	Reactive	Indeterminate	Not Reported
11341	Non-Reactive	23	2	0	3
11342	Non-Reactive	25	0	0	3
11343	Reactive	2	23	0	3
11344	Reactive	2	23	0	3
11345	Non-Reactive	23	2	0	3

Part 1. SCREENING

TABLE 2: Number of Screening Methods Reported; Includes Primary and Secondary Methods

Method Code	Kit Source	Participants
10	Fujirebio Serodia-HIV 1,2	2
11	In House	1
12	Other	4
27	Tecnosuma (Cuba) UMELISA HIV 1+2	2
40	Avioq HIV-1 Microeleisa Systems	12
41	Bio-Rad HIV-1/Hiv-2 plus O EIA	1
	Total	22*

*Note: Three laboratories did not report EIA data and reported final interpretations based on a Western Blot confirmatory tests.

TABLE3: Summary of screening errors by method.

All Methods	11341		11342		11343		11344		11345	
	FP	IND	FP	IND	FN	IND	FN	IND	FP	IND
10 Fujirebio Serodia-HIV 1,2										
27 Tecnosuma (Cuba) UMELISA HIV 1+2										
34 Q-Preven HIV 1+2, DBS, Brazil										
40 Avioq HIV-1 Microeleisa Systems										
41 Bio-Rad HIV-1/HIV-2 plus O EIA										
11 In House										
12 Other NeoMAP	2				2		2		2	
False Pos =	4									
False Neg =	4									
Indeterminant =	0									

PART 2. CONFIRMATORY

Table 4: Number of Confirmatory Methods Reported

<u>Method Code</u>	<u>Kit Source</u>	<u>Total Participants</u>
16	Genetic Systems HIV-1 WB Kit (Bio-Rad)	12
32	Cambridge Biotech HIV-1 WB Kit (Maxim)	2
12	Other: NeoMAP, Brazil	1
37	Genelab Diagnostics HIV 2.2 WB	1
42	MP Diagnostics HIV Blot 2.2	1

		Total 17

Tables 5: Reported Frequency of Bands for Reactive Specimens (All Methods)

Total # Labs (18)	gp160	gp120	p66	p55	p51	gp41	p31	p24	p18
Specimen 11343 (R)	17	17	16	13	15	15	15	17	14
Specimen 13344 (R)	16	15	15	12	14	13	15	16	11

This **NEWBORN SCREENING QUALITY ASSURANCE PROGRAM** report is an internal publication distributed to program participants and selected program colleagues. The laboratory quality assurance program is a project cosponsored by the **Centers for Disease Control and Prevention (CDC)** and the **Association of Public Health Laboratories**.

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