

Newborn Screening Quality Assurance Program

PROFICIENCY TESTING

Sickle Cell Disease and Other Hemoglobinopathies

Volume 23, No. 2

Panel 2

June 2013

INTRODUCTION

On April 29, 2013 we distributed five dried-blood-spot (DBS) specimens prepared from umbilical cord bloods to all active participants for the Panel 2 Sickle Cell Disease and Hemoglobinopathies Proficiency Testing (PT) event. A total of 73 panels were mailed by overnight FedEx mail to 49 domestic laboratories and 24 foreign laboratories. This PT report is a compilation of data reports received from 70 of the participating laboratories by the designated deadline date. There were 3 laboratories that did not report this quarter. We distribute this quarterly report to all participants, state laboratory directors, and to program colleagues by request.

We requested that participants assay all survey specimens by the analytical schemes they routinely use and report for each specimen the presumptive phenotype, the presumptive clinical assessment, and any other clinical classifications that they deem consistent with their analytic results and program operations. ❖

PARTICIPANTS' RESULTS

The certification report listing hemoglobins (Hb) by phenotype and their

presumptive clinical assessments appears on page 2.

The frequency distribution of reported presumptive phenotypes and clinical assessments appears on page 3.

The individual data verification for each laboratory with evaluation comments appears on page 4.

We will continue to ship three PT panels this year for Hemoglobinopathies. The next shipment of materials from the Sickle Cell and Hemoglobinopathies PT program will be on October 7, 2013. ❖

MEETINGS AND TRAINING

SCDAA (Sickle Cell disease Association of America) 41st Annual Convention – September 24-27, 2013.

The SCDAA Annual Convention is a four-day conference designed to address the multi-factorial aspects of Sickle Cell Disease. This year the event will be held in Baltimore, Maryland, home of the SCDAA National Office. For more information visit: www.sicklecelldisease.org

13th International Conference on Thalassaemia and the Hemoglobinopathies & the 15th International Conference for Patients and Parents-

Oct 20-23, 2013. This event brings together eminent medical professionals and Thalassemia Associations across the globe, with an active participation from the countries of the Middle-East. Location: Abu Dhabi, UAE. For more information visit: www.sita.ae

CDC Webinars: Hemoglobinopathies and Public Health - Sickle Cell Information Center. The CDC is currently hosting a series of webinars focused on Hemoglobinopathies and Public Health. We are providing archives of these webinars here, so those who are interested can view them at their convenience. For a schedule of upcoming seminars along with information on how to join a seminar visit: <http://scinfo.org/world-wide-resources/cdc-webinars-hemoglobinopathies-and-public-health/pdf>

CDC/APHL

This program is cosponsored by the Centers for Disease Control and Prevention (CDC) and the Association of Public Health Laboratories (APHL).

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**Newborn Screening Quality Assurance Program
Sickle Cell Disease and Other Hemoglobinopathies**

Specimen and Lab Certification

Year: 2013 Panel: 2

Presumptive Clinical Phenotypes

	Specimen 213H1	Specimen 213H2	Specimen 213H3	Specimen 213H4	Specimen 213H5
Expected Presumptive Phenotype	FA	FA	FA	FA	FAC
Accepted Presumptive Phenotypes	FA	FA	FA	FA	FAC

Presumptive Clinical Assessments

	Specimen 213H1	Specimen1 213H2	Specimen 213H3	Specimen 213H4	Specimen 213H5
Expected Presumptive Clinical Assessment	01	01	01	01	03
Accepted Presumptive Clinical Assessments	01	01	01	01	03

NORMAL HEMOGLOBIN PATTERN

- 01 Normal - no abnormal Hb found
- 02 Hemoglobin S carrier
- 03 Hemoglobin C carrier
- 08 Hemoglobin D carrier
- 09 Hemoglobin E carrier

SICKLE CELL DISEASES

- 04 Hemoglobin SS disease (Sickle cell anemia)
- 05 Hemoglobin SC disease
- 06 Hemoglobin SD disease
- 12 Hemoglobin SE disease

OTHER REPORTABLE FINDINGS

- 16 Alpha thalassemia (Bart's Hb)
- 18 Hemoglobin E, E disease
- 19 Fast or aging bands (clinically insignificant)
- 20 Assessment not listed
- 21 Unsatisfactory sample
- 22 Unidentified variant carrier

LIST OF METHOD CODES

- | | |
|--|-----------------------------|
| 01 Electrophoresis - Cellulose Acetate | 10 Bio-Rad Screening HPLC |
| 02 Electrophoresis - Citrate Agar | 11 Extended Gradient HPLC |
| 04 Isoelectric focusing | 12 Other Methods |
| 07 Monoclonal antibody methods | 13 PCR amplification of DNA |
| 14 Primus Ultra ² HPLC | |

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Frequency Distributions

Year: 2013 Panel: 2

Phenotypes			Clinical Assessments		
Specimen Number	Hemoglobin Phenotypes	Frequency Distributions	Specimen Number	Presumptive Assessments	Frequency Distributions
213H1	FA	70	213H1	01 Normal	70
213H2	FA	70	213H2	01 Normal	70
213H3	FA	70	213H3	01 Normal	70
213H4	FA	70	213H4	01 Normal	70
213H5	FAC	70	213H5	03 Hemoglobin C Carrier 02 Hemoglobin S Carrier	69 1*

Note: An astrisk (*) denotes a missed phenotype or assessment.

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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