

TRAINING UPDATE

Lab Location: SGMC & WAH
Department: Field Ops & Core

Date Distributed: 1/5/2016
Due Date: 1/31/2016
Implementation: 2/1/2016

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:
Newborn Metabolic Screening SGAH.S927, WAH.S919 v0 Courier Log for Sending Specimens to MDHMH AG.F345.0
Description of change(s):
<p>This is a new SOP and form. It will replace the current NMS SOP.</p> <p>Important changes for Field Ops staff include:</p> <p>Specimen Processing is responsible for:</p> <ul style="list-style-type: none">• checking forms to ensure that they are completed correctly and that sample collection is adequate• drying samples properly• packaging samples• shipping samples to MDHMH Lab, includes completion of new courier log <p>Client Services is responsible for:</p> <ul style="list-style-type: none">• receiving initial faxed results• sorting complete and incomplete results• sending results to the Nursing Unit and/or HIM to be scanned into the HIS• managing incomplete results <p>Phlebotomy Group Lead/assigned phlebotomist is responsible for delivering re-collection labels to the nursing unit.</p> <p>Important changes for Core Lab staff include:</p> <ul style="list-style-type: none">• Tech on the assigned Bench (SG diff bench, WAH micro bench) is responsible for entering appropriate LIS code on initial faxed results.• New code for resulting test = SNS which translates to “See Cerner for scanned results on Newborn Screens”. <p>This SOP and form will be implemented on February 1, 2016</p>

Document your compliance with this training update by taking the quiz in the MTS system.

Approved draft for training (version 0)

Non-Technical SOP

Title	Newborn Metabolic Screening	
Prepared by	Lori Loffredo	Date: 11/16/2015
Owner	Samson Khandagale	Date: 11/16/2015

Laboratory Approval		
Print Name and Title	Signature	Date
<i>Refer to the electronic signature page for approval and approval dates.</i>		
Local Issue Date:		Local Effective Date:

Review:		
Print Name	Signature	Date

TABLE OF CONTENTS

1. PURPOSE.....	2
2. SCOPE	2
3. RESPONSIBILITY.....	2
4. DEFINITIONS.....	3
5. PROCEDURE.....	4
6. RELATED DOCUMENTS	14
7. REFERENCES	14
8. REVISION HISTORY.....	15
9. ADDENDA AND APPENDICES	15

1. PURPOSE

Newborn Metabolic Screen tests detect over 50 disorders for endocrine and hemoglobin disorders, cystic fibrosis, disorders breaking down Lactose, as well as disorders breaking down fats and proteins. Some of the disorders are life-threatening and need immediate intervention.

This procedure outlines the Lab process to ensure a *proper sample with adequate information* is submitted to the Maryland Department of Health and Mental Hygiene (MDHMH) to ensure:

- correctly collected, high quality specimens
- proper handling after collection
- proper and prompt transport to the testing facility at the Maryland Department of Health and Mental Hygiene
- checking on result status via overdue log
- results reporting

2. SCOPE

This Standard Operating Procedure (SOP) covers

- the process from receipt of the completed collection form
- processing the specimen
- transporting the specimens to MDHMH
- tech-in-charge role/technical bench assignment
- client services managing results
- HIM scanning results into the EMR

3. RESPONSIBILITY

Specimen Processing is responsible for:

- checking forms to ensure that they are completed correctly and that sample collection is adequate

- drying the samples properly
- packaging the samples
- shipping the samples to the MDHMH Lab

Client Services is responsible for:

- receiving initial faxed results
- sorting complete and incomplete results
- sending results to the Nursing Unit and/or HIM (Health Information Management) to be scanned into the HIS
- managing incomplete results

Technical staff on the assigned Bench is responsible for entering appropriate LIS code on initial faxed results.

Phlebotomy Group Lead/assigned phlebotomist is responsible for delivering re-collection labels to the nursing unit.

MDHMH Contact Info:
443-681-3900 or fax 44-681-4505

4. DEFINITIONS

DHMH77 – form used to submit specimens for babies less than 7 days old

- Full term healthy babies as close to discharge as possible. Ideally, this is after 24 hour of age and 24 hours of milk feeding.
- NICU/Special Care babies collect specimen on admission, 48-72 hours of age, 10 days of age, and one month or at discharge.

DHMH79 – form used to submit specimens for babies greater than 7 days old used in outpatient setting, i.e. Pediatrician office

HIM – Health Information Management (formerly known as Medical Records)

MDHMH - Maryland Dept. of Health & Mental Hygiene (lab performing newborn screen testing)

NBS – Newborn Screen

NMS – Sunquest test code for Newborn Metabolic Screen (NMS)

NMSR – Sunquest test code for Repeat Newborn Screen to be used only if the State lab requests a repeat test.

SPKU – Tracking template for SGAH

WPKU – Tracking template for WAH

STATEW – Worksheet for WAH

STATES – Worksheet for SGAH

5. PROCEDURE

A. Timing of Newborn Screens

- For a well-baby, the initial NBS should be collected when the baby is 24 to 72 hours old **and** has had at least 24 hours of feeding.
- It is very important to record birth time, 1st feeding time and collection time on the collection card.
- It is the birth hospital's responsibility to make sure the initial NBS specimen is collected on well babies after 24 hours of age **AND** after 24 hours of feeding.
- If baby is discharged prior to 24 hours of age, or had less than 24 hours of feedings prior to the specimen collection, a repeat NBS needs to be collected as soon as possible.
- The State of Maryland has a two tier NBS system. All babies should have a second NBS collected after 7 days of life. This is usually done in the pediatrician's office at the two week check-up.
- There is a different schedule for babies who are in the special care nursery (SCN) or neonatal intensive care unit (NICU).
- The first NBS should be collected promptly after admission to the SCN or NICU. This specimen should be collected **PRIOR** to any blood transfusion and initiation of antibiotics.
- Additional screens should be collected between 2-3 days of age, at the 10 day interval, and then again at 1 month or discharge (whichever comes first).
- Newborn Screening is a lifesaving practice.
- Timing is crucial in newborn bloodspot screening.
- Delays for any reason can cause infants with certain disorders to die before parents realize something is wrong.
- The sooner a disorder is identified, the earlier treatment begins.
- Infant outcome depends on newborn screening practices.

B. Specimen Quality

- Unsatisfactory specimens slow down testing.
- The specimen may be unsatisfactory secondary to missing vital information on the lab slip or blood spots which are not acceptable for testing.
- **Birth Date and Collection Date**
Used to determine age of infant at the time of collection.
Date of collection also determines age of blood at the time of analysis.
- **First Feeding Date and Time**
Used to determine if infant has had at least 24 hours of feeding.
This information is very important for proper laboratory analysis of the results. The Galactose and Amino Acid Profile will be reported as IMF (insufficient milk feeding) if 1st feeding date and time are not given.
- **Provider Information**
It is important to note **the provider that will be following the baby after discharge** so MDHMH can contact them if there is an abnormality and so the provider can receive a copy of the results of the newborn screen.

- Weight – The test for cystic fibrosis is valid only if a baby is over 1500 grams. The cut-off values for congenital adrenal hyperplasia are also based on the infant’s weight. Results will be reported as “Incomplete” if weight is missing.
- Type of feeding – Please note all forms of nutrition given prior to the collection of the specimen. Note if baby is breast feeding only, taking lactose or lactose-free formula or breast feeding and taking formula.

If baby is NPO, indicate whether or not baby is on TPN. The date and time TPN is started should be entered on the collection form in the space for 1st feeding date and time.

C. Unsatisfactory Specimen

- If the blood specimen does not give reliable results, it will have to be repeated.
- Getting a repeat specimen can take weeks, putting the newborn baby at risk.
- Always check the specimen before sending to make sure it appears acceptable.
- Do not touch the actual filter paper portion of the lab slip either before, during or after blood collection. Contamination of the filter paper with water, formula or powder from gloves will affect the results.
- Check the specimen to make sure the blood saturated through the card and there is no overlapping of blood in the circles. If there is a problem with the specimen, the test should be repeated.

Schleicher & Schuell

Simple Spot Check

Valid Specimen



Allow a sufficient quantity of blood to soak through to completely fill the pre-printed circle on the filter paper. Fill all required circles with blood. Do not layer successive drops of blood or apply blood more than once in the same collection circle. Avoid touching or smearing spots.

Invalid Specimens:



1. Specimen quantity insufficient for testing



2. Specimen appears scratched or abraded.



3. Specimen not dry before mailing.



4. Specimen appears supersaturated.



5. Specimen appears diluted, discolored or contaminated.



6. Specimen exhibits serum rings.



7. Specimen appears clotted or layered.



8. No blood.

Possible Causes:

- Removing filter paper before blood has completely filled circle or before blood has soaked through to second side.
- Applying blood to filter paper with a capillary tube
- Touching filter paper before or after blood specimen collection with gloved or ungloved hands, hand lotion, etc.
- Allowing filter paper to come in contact with gloved or ungloved hands or substances such as hand lotion or powder, either before or after blood specimen collection.
- Applying blood with a capillary tube or other device.
- Mailing specimen before drying for a minimum of four hours.
- Applying excess blood to filter paper, usually with a device.
- Applying blood to both sides of filter paper.
- Squeezing or "milking" of area surrounding the puncture site.
- Allowing filter paper to come in contact with gloved or ungloved hands or substances such as alcohol, formula, antiseptic solutions, water, hand lotion or powder, etc. - either before or after blood specimen collection.
- Exposing blood spots to direct heat.
- Not wiping alcohol from puncture site before making skin puncture.
- Allowing filter paper to come in contact with alcohol, hand lotion, etc.
- Squeezing area surrounding puncture site excessively.
- Drying specimen improperly.
- Applying blood to filter paper with a capillary tube.
- Touching the same circle on filter paper to blood drop several times.
- Filling circle on both sides of filter paper.
- Failure to obtain blood specimen.

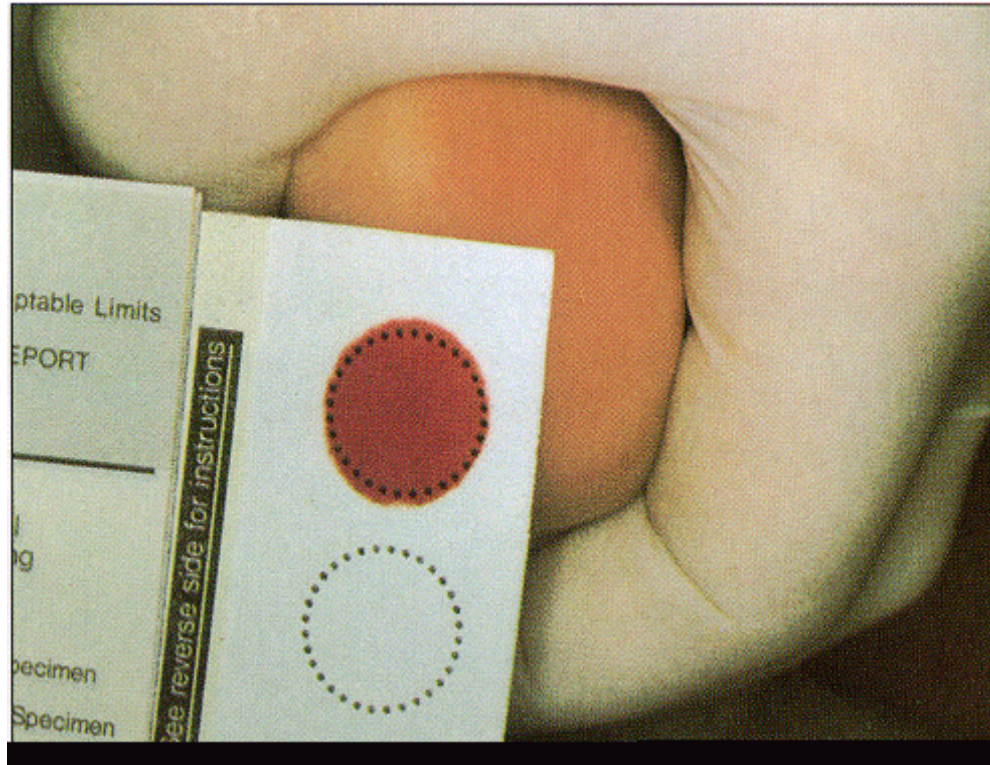
Information provided by The
New York State Department of Health.

Schleicher & Schuell Inc. • 10 Optical Avenue • Keene N.H. 03421 USA • Tel. (603) 352-3810 • Fax (603) 355-6524 • Internet: <http://www.s-and-s.com> • e-mail: solutions@s-and-s.com
Schleicher & Schuell GmbH • P.O. Box 4, D-37682 Dassel • Germany • Tel. 49-5681-7911-0 • Fax 49-5681-791598 • Internet: <http://www.s-und-s.de> • e-mail: calzedizgeomp@s-und-s.de

D. Specimen Collection

- Once the collection form is completely and accurately filled out, the nurse can collect the sample.
- If a phlebotomist is requested to assist in collection of a newborn screen, **first review that the collection form is completely and accurately filled out.** If the form is NOT completely and accurately filled out, return the form to the nurse for completion AND DO NOT collect the sample. Once the form is completed accurately, gather supplies for the collection of the specimen.
- Refer to SOP Heel Stick.
- Direct application of blood onto the filter paper is recommended.
- Lightly touch filter paper to LARGE blood drop. Filter paper acts like a capillary tube, drawing blood into itself.
- Allow blood to soak through and completely fill circle with SINGLE application.
- The blood should soak through the paper and be visible on the other side of the paper.

- Fill remaining circles by lightly touching one LARGE blood drop to each circle.
- Check the specimen to make sure the blood saturated through the card and there is no overlapping of blood in the circles. If there is a problem with the specimen, the test should be repeated.
- Allow specimen to dry on a clean flat non-absorbent surface for a minimum of 4 hours.



E. General Information

Testing is performed at MDHMH Monday through Saturday.
Specimens must be received in the laboratory by 8:00 am to be included on the day's run.

- Results from MDHMH are faxed AND mailed to the hospital of birth.
- If the baby has an abnormal screen, the medical home/primary care provider (PCP) listed on the screening card is called by the State Counselor with the results.
- Abnormal screens need to be followed up *immediately*.
- Hospitals and pediatricians have access to NBS reports for their babies online:
<http://starlims.dhmf.state.md.us/starlims10.mynbs/default.htm>

Please call 410-767-6099 to obtain access to reports for your babies on-line

Submitter Code for WAH: 2010153

Submitter Code for SGAH (well baby): 2010017

Submitter Code for SGAH (NICU only): 2020017

F. Receiving Specimens in the LIS

1. Verify that each Newborn Screening form has complete information. The minimum information required by the State lab includes:
 - a. Age of the newborn infant, birth date and collection time
 - b. Identification of the newborn infant
 - c. Date and Time of specimen collection
 - d. Newborn infant's weight
 - e. Date and Time of newborn infant's first feeding (used to determine if infant had at least 24 hours of feeding).
 - f. Physician (the provider that will be following the baby after discharge)
 - g. Verify Newborn Screening form is not expired.
 - h. Submitter code
 - i. If **ANY** piece of the above information is missing or incomplete, contact the nurse caring for the infant and request they come to the Lab to record any missing information PRIOR to submitting to MDHMH for testing.
2. Specimen processing will receive the Newborn Screening form in the LIS.
3. Place an LIS bar code label on the back of the specimen collection form.
4. Retain a copy of the collection form in the lab for one month:
 - If the yellow submitter copy is present, place an LIS bar code label and file.
 - If the nursing unit kept the yellow copy, Xerox the white form and file.
5. Newborn Metabolic Screening forms MUST dry for a minimum of 4 hours on a clean flat non-absorbent surface away from heat and light. Do not stack, or allow the blood spots to touch other surfaces or hang to dry during the drying process.
6. Specimens will be delivered to the MDHMH lab daily Monday through Saturday via Hospital contracted courier. Courier picks up SGMC/WAH between 10 – 11 am to arrive at Dennis Ave. facility by 1 p.m. for delivery to Baltimore. Sunday samples are held for delivery on Monday.
7. Specimens must be received by the State lab within 72 hours of collection. The expectation is that 90% of all samples will be received by MDHMH Lab within 72 hours of collection.

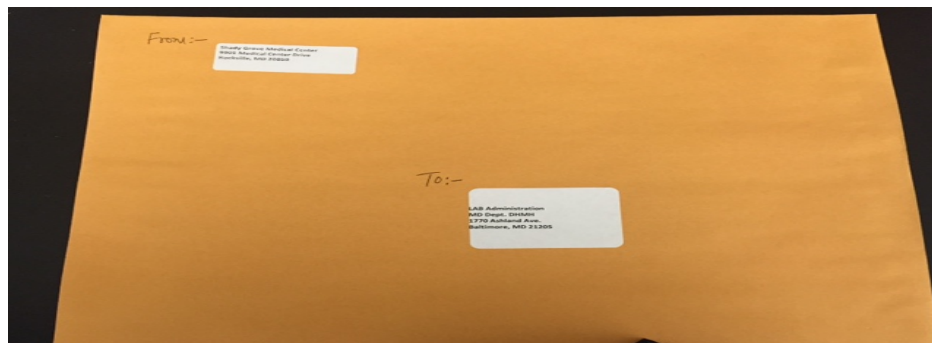
G. Create NMS Tracking List

1. Function: **TR**
2. ? prompt: **1** (create batch)
3. Template Code: **WPKU (WAH) or SPKU (SGAH)**
4. Accept, Modify, Reject: **A**
5. Cut-off date: **enter**
6. Cut-off time: **enter**
7. Batch comment: **enter**

8. Accession #: type or wand LIS accession number of the specimen to be placed on the batch and press enter. The qualifying tests will display (NMS, NMSR).
9. At the Test prompt press enter.
10. At the Accession number prompt, repeat steps 8 and 9 for other samples to be placed on the track.
11. When all accession numbers have been added to the track, press enter at the Accession number prompt.
12. At the Accept, Modify, or Reject prompt, type the response for the appropriate action.
13. At the Printer prompt, type in Printer Number; at the # of copies prompt, press 2 for two copies and press enter.
14. At the Use host prompt, press enter. The Queued for Transit list will print. The batch number is located on the top of the printout.
15. Each time a new batch is created, a "Specimens Missing from List Number..." is generated, if a newborn screen has been received in the lab but was not added to the transport list. These specimens need to be researched to determine their status. Action taken (found and sent, cancelled, etc.) should be documented on the Missing List and saved. If specimen is found then a new transport list should be created so that the specimen can go out for testing.
16. For more details about Tracking, including how to modify a batch, refer to the procedure TR – Tracking.

H. Newborn Metabolic Screen Packaging

1. Rubber band Tracking List to batch of specimen cards. Place in heavy weight manila envelope (13x10) and adhere stickers denoting To and From Address.



- Note:** Tracking list can be either Xeroxed or reprinted via function TR
Function: **TR**
Option: **4** (reports)
Printer: Enter Sunquest printer number
Select option **1** (Transport list)
Batch no.: Enter in transport list number that is located in the header of the transport list (Transport list number ###).
Sort Order (<A>/D/F/W): **enter**
Retrieve Transport List from printer.

2. File a copy of the Tracking List in the Laboratory -
SGAH: folder labeled "NMS" in accessioning
WAH: folder labeled "NMS" in accessioning
3. The specimens are delivered to:

Maryland DHMH Lab
1770 Ashland Ave.
Baltimore, MD 21205
4. The courier log must be completed for each pick up and signed or initialed by the courier and processor.

I. Newborn Metabolic Screen Results

- Results are initially faxed to the Laboratory Client Service Area. The Lab acts on the initial faxed results.
- The state follows up with a hard copy mailed report a week to ten days after receipt of initial faxed report. The Lab receives the faxed and mailed reports as the representative of the hospital of birth.
- Results from the first screen are mailed to the medical home/primary care provider by MDHMH, ***IF*** this information is indicated on the newborn screening form.
- If the baby has an abnormal screen, the medical home/primary care provider (PCP) listed on the screening card is called by MDHMH with the results. **If a provider is not listed, the Newborn Screening Follow-up Unit does not know who is appropriate to contact.**
- If the hospital's on-call doctor is listed on the lab slip instead of the baby's medical home/PCP, it delays follow up and puts the baby at risk.

1. Faxed Newborn Screen Resulting

- a. Screening results will be received via the fax in the lab outpatient area (WAH 301-891-6192 and at SGMC 240-826-5411).
- b. Client Services/Processing staff will screen results and separate out **completed** results from **incomplete** results (repeats, QNS, partial results, missing information, etc.). Paper clip results in each pile (complete vs. incomplete). Reports that are incomplete because information is **missing** are held by Client Services for follow up as described in section I.3 step c.
- c. Client Services/Processing staff will take the faxed results to the appropriate bench for result entry (SG diff bench, WAH micro bench).

2. Newborn Screen LIS Resulting

- a. Technical staff will enter results as follows:

Function: MEM

Worksheet: **STATEW** (WAH) or **STATES** (SGAH)

Test 1: **NMS** (Newborn Metabolic Screen) or
NMSR (Newborn Metabolic Screen Repeat)

Result the Test Code NSCR with **SNS** which translates to “See Cerner for scanned results on Newborn Screens”.

Note: the same code is used to result ALL newborn screens.

- b. Once the faxed results have been entered by a technologist, they are taken to client services for distribution. **Always keep complete and incomplete results separated.**
- c. Client Services will
- Send completed results (normal and abnormal) on discharged babies to HIM for scanning
 - Send completed results (normal and abnormal) for babies still in the nursery to the nursing unit
 - Refer to step 3 for incomplete results

Note concerning abnormal results:

The State laboratory will report all newborn screening results that indicate a high risk for a hereditary or congenital disorder to the Newborn Screening Program’s Follow-Up Unit to initiate a case workup. The Newborn Screening Follow Up Unit is responsible for contacting the physician to communicate abnormal results and to request additional testing. The Newborn Screening Follow up Unit will take the following steps to make contact:

- Contact the hospital to determine if the baby has been discharged
- Call the physician
- Call the parents to get the name of the pediatrician.
- Utilize other resources to locate the parents and get treatment for the baby including home visits by State law enforcement.

3. Incomplete Results and Actions

- a. All incomplete NBS must be followed up **immediately**. Client Services will manage as described below.
- b. Examples of incomplete results due to specimen quality:
- *INVALID <24 hours old or age unknown at time of collection. Please send another specimen.*
 - *IMF Insufficient Nutritional Intake*
 - *FAV HbF, HbA and an unidentified variant (V) hemoglobin are present. IF THIS IS THE FIRST SPECIMEN, SEND ANOTHER TO CONFIRM.*

- *Acylcarnitines multiple acylcarnitines are elevated. Please submit another specimen as soon as possible.*
- *UNS-3 Specimen appears layered, clotted or oversaturated. Possible causes: touching same circle to blood drop several times; filling circle on both sides of filter paper. Please send another specimen.*
- *UNS-2 Specimen appears scratched or abraded by capillary tube or by rubbing against heel. Please send another specimen.*
- *The Niotinidase test result is not within normal limits. This does not require an emergency follow up, however, a specimen should be obtained within one week. For further questions please call 443-681-3900*

Action:

If baby is still in house, order repeat NMSR and deliver LIS label to Phlebotomy. Phlebotomy department will deliver label to RN to collect. If baby is discharged contact the pediatrician and document in Callback.

- *INVALID IRT testing is not reliable for samples collected when the baby's weight is < 1500 grams. A second screening sample is required when the baby's weight is 1500 g and is 10 days or more of age.*

Action:

If baby is still in house, results are sent to floor to **Attention: Charge Nurse for repeat.**

If baby is discharged contact the pediatrician and document in Callback.

c. Example of incomplete result due to missing information:

- *INCOMPLETE Test results cannot be evaluated and reported without weight and gestational age as well as date and time of birth, first feeding (or TPN) and blood collection. Please submit the missing information to our office and we will issue and amended report.*

Action:

Client Services will look up missing information and call the MDHMH with the information so an amended report can be issued.

Note: The order must be left pending until the actual result is received.

d. Once follow up action has been initiated, Client Services will

- Send results on discharged babies to HIM for scanning
- Send results for babies still in the nursery to the nursing unit

4. **Mailed Newborn Screen Results**

When hard copy mailed results arrive, they are given to the specimen processor managing newborn screen mail outs.

- a. The processor **MUST** compare the hard copy mailed reports to the overdue log for newborn screens. There should be few, if any, hard copy reports that are a match to the overdue log.
- b. If no hard copy reports have a match they can be discarded in shred-it bin as Lab has already acted upon faxed reports.

- c. If there is a hard copy report that appears on the Overdue Log, return that result to the technical bench assigned to report Newborn screens and the technologist will enter in LIS according to steps listed in section I.2 and I.3 above.
- d. Results are also available on the State lab website
<http://starlims.dhmf.state.md.us/starlims10.mynbs>

User name: Submitter code for laboratory
Submitter Code for WAH: 2010153
Submitter Code for SGAH (well baby): 2010017
Submitter Code for SGAH (NICU only): 2020017

Password: submitter code-NBS
Password for WAH: 2010153-NBS
Password for SGAH (well baby): 2010017-NBS

- Click on “Users Login” and follow the instructions to run the script to allow the site to work properly.
- Enter the appropriate username and password.
- Follow the links to the results. **DO NOT** change the password. It is used by everyone at a specific location.

J. MDHMH Specimen Submission Data

Maryland Dept. of Health & Mental Hygiene (MDHMH)

MDHMH provides reports on transition time from the hospital location to MDHMH. MDHMH provides reports on 90% of specimens received within 72 hours

Reports are posted on the Newborn Screening Website under Hospital Performance and are available in the second week of the month for the previous month

<http://dhmf.maryland.gov/laboratories/SitePages/Hospital%20Performance.aspx>.

K. Overdue Log

Tests that have been received in the lab but not resulted in 7 days will qualify for the overdue log report.

1. Both tests (NMS and NMSR) will qualify for the **AML** group worksheet that is currently utilized for overdue logs.
2. An overdue log for AML group worksheet will be pulled Monday – Friday by the specimen processing staff managing NMS utilizing worksheet *STATEW* or *STATES*.
 - a. Function: **OL** (Laboratory Reports)
 - b. Printer: enter **printer number**

- c. Cut-Off Date: <Enter>
Cut-Off Time: <Enter>

Hospital ID(s) 1: **WAH** or **SGAH**
2: <Enter>
3:

Worksheet(s) 1: **STATEW** or **STATES**
2: <Enter>
3:

Exception(s) 1: N/A <Enter>

- d. Accept / Modify / Reject: **A**
- e. Review report. Any tests that appear on the report are overdue.

- 3. Specimen processing will verify that the specimen was sent to MDHMH and the date that it was sent. This information will be given to Client Services for follow up.
- 4. Client Services will:
 - a. Check the State lab's online results and reprint if necessary
 - b. Contact the State lab at 410-767-6099 or 410-767-6170 to determine when results can be expected.
- 5. All information discovered in the investigation will be documented on the Overdue Log and kept per Documentation and Retention policy.

L. Billing

Invoices are directed to Laboratory Management for processing through Adventist Accounts Payable.
Invoices to be expensed to cost center 1-01- 4031(SGMC) and 1-02-4031 (WAH);
General Ledger # 78670 Purchased Services

M. Forms

Forms may be ordered via a fax 410-333-7112 in packets of 100. Forms **MAY NOT BE SHARED** between facilities as the form is imprinted with a facility code.

6. RELATED DOCUMENTS

Callback, LIS procedure
TR – Tracking, LIS procedure
Retention of Records and Materials, General Laboratory policy
Courier Log for Sending Specimens to MDHMH

7. REFERENCES

Newborn Bloodspot Screening Specimen Collection for Birth Facilities
State of Maryland Department of Health and Mental Hygiene
Maryland Newborn Screening Laboratory
MD DHMH Laboratories Administration
1770 Ashland Avenue Baltimore City, MD 21205

Main Phone No: (443) 681-3800
Main Fax No: (443) 681-4501.
<http://dhmh.maryland.gov/laboratories/>.

http://www.dhmh.maryland.gov/laboratories/SitePages/nbs_provider.aspx

Quick Links:

- New Parent Brochure: [English](#) [Español](#)
- Order Newborn Screening Blood Collection Kits
- Hospital Courier Instructions
- Pediatrician Mailing Information
- Provider's guide to Newborn Screening Disorders
- List of Disorders on the Newborn Screen
- Obtain Newborn Screening Results
- Contact a Specialist
- Provider Frequently Asked Questions
- Training
- Newborn Screening Refusal Form Instructions
- Newborn Screening Refusal Form
- Newborn Screening Refusal Form (Spanish)

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By

9. ADDENDA AND APPENDICES

MDHMH Email for delivery time of NBS specimens

From: Fizza Majid -DHMH- [<mailto:fizza.majid@maryland.gov>]
Sent: Friday, March 06, 2015 1:50 PM
To: Fizza Majid -DHMH-
Subject: Specimens Received Between 10/01/2014 And 12/31/2014

Dear Colleagues;

Newborn screening (NBS) has been proven to benefit the health outcomes of infant by identifying heritable disorders that when treated greatly reduces infant morbidity and mortality. However, in many cases for the medical interventions to be successful the disorders must be identified by prompt testing immediately after birth.

In 2013, Maryland Department of Health and Mental Hygiene Newborn Screening laboratory (NBS) launched a Quality Assurance (QA) initiative aimed at improving the number of samples received in a timely manner from hospitals. The goal was to obtain at least 90% specimens from hospitals within 72 hours of collection.

The initial review of the specimen submission data for the first six months of 2013 showed an average of 60% of specimens as received within 72 hours, with only two hospitals of the 32 birthing hospitals achieving the set goal of 90%. This data was then shared with each of the birthing hospitals and they were asked to submit individualized plans that would effectively meet the objective.

The plans submitted by birthing hospitals included:

- a) An improvement of their internal processes of transporting the specimens within 72 hours of Collection
- b) Using a private couriers or FedEx to transport specimens daily
- c) Transporting specimens on Saturdays and holidays to NBS.

The DHMH NBS Laboratory also made changes to their specimen processing workflow to accommodate these plans.

The delivery time of NBS specimens was routinely monitored after implementation of modified specimen delivery plans by the hospitals and changes in workflow within NBS an improvement was observed. The NBS Division Chief of the DHMH Laboratory worked individually with the hospitals not meeting the QA objective. Quarterly reports continue to be sent to each hospital which indicates the percentage of specimens received from their facility within 72 Hours of collection and their relative performance when compared to the complete cohort of birthing hospitals across Maryland. To date significant improvements have been made with an overall average of 91% specimens being received within 72 hours of collection.

Thank you for your cooperation and working towards the success of this project.

Reports will be posted on the Newborn Screening Website under Hospital Performance <http://dhmh.maryland.gov/laboratories/SitePages/Hospital%20Performance.aspx>. Q4 2014 is posted on the website. Monthly Charts will be posted starting January 2015. Charts will be available in the second week of the month for the previous month. For example, January Charts will be available in the second week of February.

Specimens Received within 72 Hours Chart show the % of specimens received within 72 hours of collection. This chart allows each hospital to view individual hospital's performance as it compares to the other Birthing Hospitals in Maryland (Target 90%)

Transit Time chart shows the Hospital's individual performance in average transit time as it compares the other Birthing Hospitals (Target 72 Hours).

Thank you.

Fizza Gulamali-Majid, Ph.D.
Division Chief
Division of Newborn and Childhood Screening
Laboratories Administration, DHMH, State of Maryland
201 W. Preston Street, Room 1A6
Baltimore, Maryland 21201
Phone: [410-767-6099](tel:410-767-6099)
Fax: [410-333-7112](tel:410-333-7112)
email: Fizza.Majid@maryland.gov

