ALABAMA DEPARTMENT OF PUBLIC HEALTH
BUREAU OF CLINICAL LABORATORIES

Newborn Screening Collection Guidelines

Revised January 1, 2025

ALABAMA PUBLIC HEALTH

Alabama Department of Public Health • Bureau of Clinical Laboratories • Newborn Screening Division
204 Legends Court, Prattville, AL 36066-7893, P.O. Box 1000, Prattville, AL 36067-9901
Phone: 334-290-3097 • FAX: 334-206-3708

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NEWBORN SCREENING COLLECTION GUIDELINES

Section 22-20-3 (as amended in 1987) of the Code of Alabama states that all infants must be administered a reliable test for PKU, Cystic Fibrosis, Hypothyroidism, CAH, Galactosemia, Abnormal Hemoglobins, Biotinidase Deficiency, Severe Combined Immunodeficiency, Amino Acid Disorders, Fatty Acid Disorders, Organic Acid Disorders, Lysosomal Storage Disorders, Spinal Muscular Atrophy, and X-ALD and that the testing be performed by the Public Health Laboratory.

TIMING OF SCREENING:

FIRST TEST ("A" FORM) – ***This specimen is tested for Hypothyroidism, CAH, Cystic Fibrosis, Galactosemia, Severe Combined Immunodeficiency, Hemoglobinopathies, Biotinidase Deficiency, Amino Acid Disorders, Fatty Acid Disorders, Spinal Muscular Atrophy, Organic Acid Disorders, Lysosomal Storage Disorders, and X-ALD.***

Full Term Infants	A newborn screening test should be collected when the infant is 24-48 hours of age. If the infant is discharged prior to 24 hours of age, a specimen MUST be obtained before discharge, and the parent or guardian must be informed of the importance of obtaining a repeat test before one week of age.
Home Births	The Newborn Screening Statute applies to all infants born in Alabama. The birthing attendant is responsible for collecting the newborn screening test. It is recommended that the test be collected at 24-48 hours of age.
Extended Hospital Stay (low birth weight/ sick infants)	It is recommended that a specimen be collected upon admission to the NICU if the infant is expected to receive TPN or transfusions unless the infant is so unstable that it cannot be done safely. Refer to the Alabama Newborn Screening Sick Infant Blood Collection Guidelines on page 27.
Transitioning Infants	Infants admitted to NICU for short term observation but who are not receiving TPN or transfusions should have a specimen collected according to the Full Term Infant Protocol.
Dying Infants	If an infant is likely to die, it is appropriate to collect a newborn screening specimen. While dying infants may have abnormal results as a response to organ failure, the specimen may also provide a diagnosis of an early onset screening disorder.
Older Infants	The American Academy of Pediatrics recommends that physicians know the screening status of all children in their care. While older infants may enter the practice without evidence of a newborn screen, the Alabama Department of Public Health's Newborn Screening Program has established standards and cutoffs for newborns and infants and therefore **cannot accept specimens on children older than 12 months of age.**

SPECIAL CONSIDERATIONS:

Transfused Infants	A specimen should be collected prior to transfusion regardless of age or treatments unless the infant is so unstable it cannot be done safely. If the specimen is not collected prior to transfusion, collect a specimen greater than 72 hours post transfusion. Another specimen should be collected at 3-4 months post transfusion for Hemoglobinopathies, Biotinidase Deficiency, and Galactosemia. If a Galactosemia condition is suspected and the specimen was not collected prior to transfusion, place the infant on a galactose-free diet until a definitive diagnosis can be made.
Transferred Infants	The transferring facility must collect a specimen prior to transfer regardless of age or treatments unless the baby is so unstable that it cannot be done safely. If the specimen cannot be obtained prior to transfer, the transferring facility must ensure that the next facility is aware of the need for collection of the newborn screening specimen.
Parent Refusal	Parents may refuse newborn screening only for religious reasons. Parents who refuse under this condition should sign a statement that is placed in the infant's medical record. **A newborn screening collection form should be filled out completely with a statement as to the refusal and mailed to the State Laboratory.**

NEWBORN SCREENING COLLECTION GUIDELINES

SECOND TEST ("B" FORM) – *This specimen is tested for Hypothyroidism, CAH, Cystic Fibrosis, Galactosemia, Biotinidase Deficiency, Amino Acid Disorders, Fatty Acid Disorders, and Organic Acid Disorders.*

Note: This specimen is not routinely tested for Hemoglobinopathies. If no valid test has been done for this disorder, please see instructions below for collection of requested repeat specimens, "Requested Repeat."

1. A second newborn screening specimen should be collected at 2-6 weeks of age (4 weeks optimal) on all full term infants with a normal first test screen.
2. If the first test specimen was collected when the infant was greater than one week of age but less than two weeks of age, the second test specimen should be collected at 4-6 weeks of age.
3. If the first test specimen was collected after two weeks of age, a second ("B") specimen need NOT be collected.

Requested Repeat ("B" form)

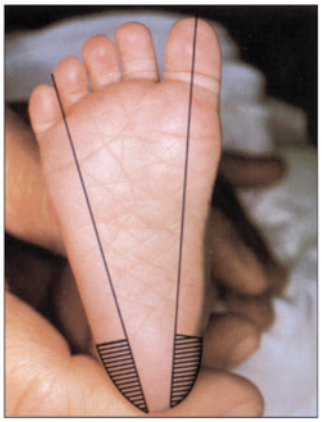
1. A repeat specimen may be requested by the State Laboratory when the results are abnormal or questionable. The specimen should be collected in the time frame indicated by the report. The "Retest-Prior Abnormal" box must be marked on the collection form.
2. If the first test is unsatisfactory for testing, a repeat test should be collected as soon as possible. The "Retest-Prior Unsat" box must be marked on the collection form.

COLLECTION OF FILTER PAPER BLOODSPOT SPECIMEN

Materials needed for Blood Collection:

1. Gloves
2. 70% isopropyl alcohol pads
3. Dry sterile gauze pads
4. Sterile sticking device with a point not greater than 2.0 mm in depth (the most effective method is the use of scalpel bladed lancets)
5. Newborn Screening filter paper collection form (CL-89) with protective envelope

Bleeding Procedure:



1. The preferred puncture site is indicated by the shaded areas on the heel. The least hazardous sites for heel puncture are medial to a line drawn posterior from the middle of the big toe to the heel or lateral to a similar line drawn on the other side extending from between the 4th and 5th toe to the heel.
2. Warm the infant's foot if necessary using warm water, a towel, or a chemical pack. Heat sources should not exceed 42°C and should not be left in contact with the skin for a prolonged period.
3. Disinfect the skin with alcohol pads and allow to air dry. Vigorous rubbing during this step stimulates blood flow to the area.
4. Puncture the skin in one continuous motion using a sterile sticking device with a tip <2.0 mm. **THE USE OF LONGER TIPS MAY DAMAGE THE HEEL BONE.**
5. Wipe away and discard the first drop of blood since it may be contaminated by alcohol or tissue fluid.
6. Allow the second drop of blood to form by the spontaneous free flow of blood.

NEWBORN SCREENING COLLECTION GUIDELINES

Collecting the Blood Spots:

1. Before collecting the blood, fold back the protective flap to expose the filter paper. Do not touch or handle the filter paper before or after applying the blood.
2. Lightly touch the filter paper against a large drop of blood and allow a sufficient quantity of blood to soak through to completely fill the circle. Apply blood to one side of the filter paper only, allowing full saturation of each circle. Either side of the filter paper may be chosen. Fill all circles. Do not layer successive small drops of blood to the same circle. Avoid touching or smearing the blood spots.
3. If blood flow is diminished, repeat the bleeding procedure with sterile equipment.
4. Once all the circles have been filled, press a sterile gauze pad to the puncture site and hold the infant's foot above the level of the heart until bleeding has stopped.
5. Dry the blood spots on a level, non-absorptive surface away from direct sunlight and at room temperature for at least 4 hours.
6. After blood spots are completely dry, replace the protective flap over the specimen and place form in the protective envelope (do not use plastic) and mail to the State Laboratory within 24 hours.

Guidelines and Possible Sources of Error:

The following guidelines may help eliminate unsatisfactory specimens or erroneous test results.

1. Do not touch any part of the filter paper circles before, during, or after collection.
2. Collect the specimen on the proper Newborn Screening collection form.
3. Complete all demographic data. This information is vital for interpretation of newborn screening results and for identification and location of infants for follow-up of abnormal test results.
   a) Always note any transfusion of red blood cells.
   b) Mark TPN feeding if TPN is being administered at time of collection.
   c) NPI # should be provided for the Ordering Physician (physician ordering the NBS screen).
4. Wipe away the first drop of blood to remove tissue fluids and alcohol. Do not "milk" the puncture site.
5. Do not expose the specimen to heat or humidity at any time. Do not dry on heater, in microwave, with a hair dryer, or in the sunlight. Do not place in plastic bags, leave in hot mailbox, or hot car; proteins and enzymes will be destroyed.
6. Ensure that the specimen is properly dried before replacing the protective flap and before placing in the protective envelope.
7. Dry specimens in a horizontal position. Hanging wet specimens will cause heavier red cells to migrate to the end of the circle causing an uneven saturation.
8. Do not superimpose blood drops on top of each other.
9. Apply blood to only one side of the filter paper.
10. Collecting blood samples after feeding promotes better blood flow.
11. Do not allow specimens to come in contact with water, feeding formulas, antiseptics, urine, etc.

NEWBORN SCREENING COLLECTION GUIDELINES

TIMING & TRANSPORT (i)

1. Specimens should be shipped or transported by mail, major courier services*, or other express delivery services to the public health laboratory as soon as they are dry (minimum of four hours) and no later than 24 hours after collection. If mailed to the lab, please send to the following address:

   Alabama Department of Public Health
   Bureau of Clinical Laboratories
   Mailing Address: P.O. Box 1000, Prattville, Alabama 36067-9901
   Physical Address: 204 Legends Court, Prattville, Alabama 36066-7893

   *Daily courier transport is recommended whenever possible to control environmental conditions and minimize delays in shipment.

2. Appropriate documentation for all stages in specimen transit should be tracked and maintained, from collection to delivery.

3. Dried blood spots (DBS) are nonregulated and an exempt human specimen, posing no occupational exposure to blood or other potentially infectious material. Standard precautions should be followed in preparing these specimens for shipment.

4. It is **NOT** recommended that DBS specimens be packaged in airtight, leak-proof sealed containers (e.g., plastic or foil bags) because the lack of air exchange causes heat buildup and moisture accumulation that is detrimental to the stability of the DBS specimen.

5. Do **NOT** place in outside mailboxes or drop boxes because fluctuating temperature and humidity may damage specimens.

6. The inclusion of desiccant packs may aid in preventing moisture accumulation.

7. The use of preaddressed envelopes for mailing may help decrease the transport time, and thus decrease time from collection to diagnosis in affected newborns.

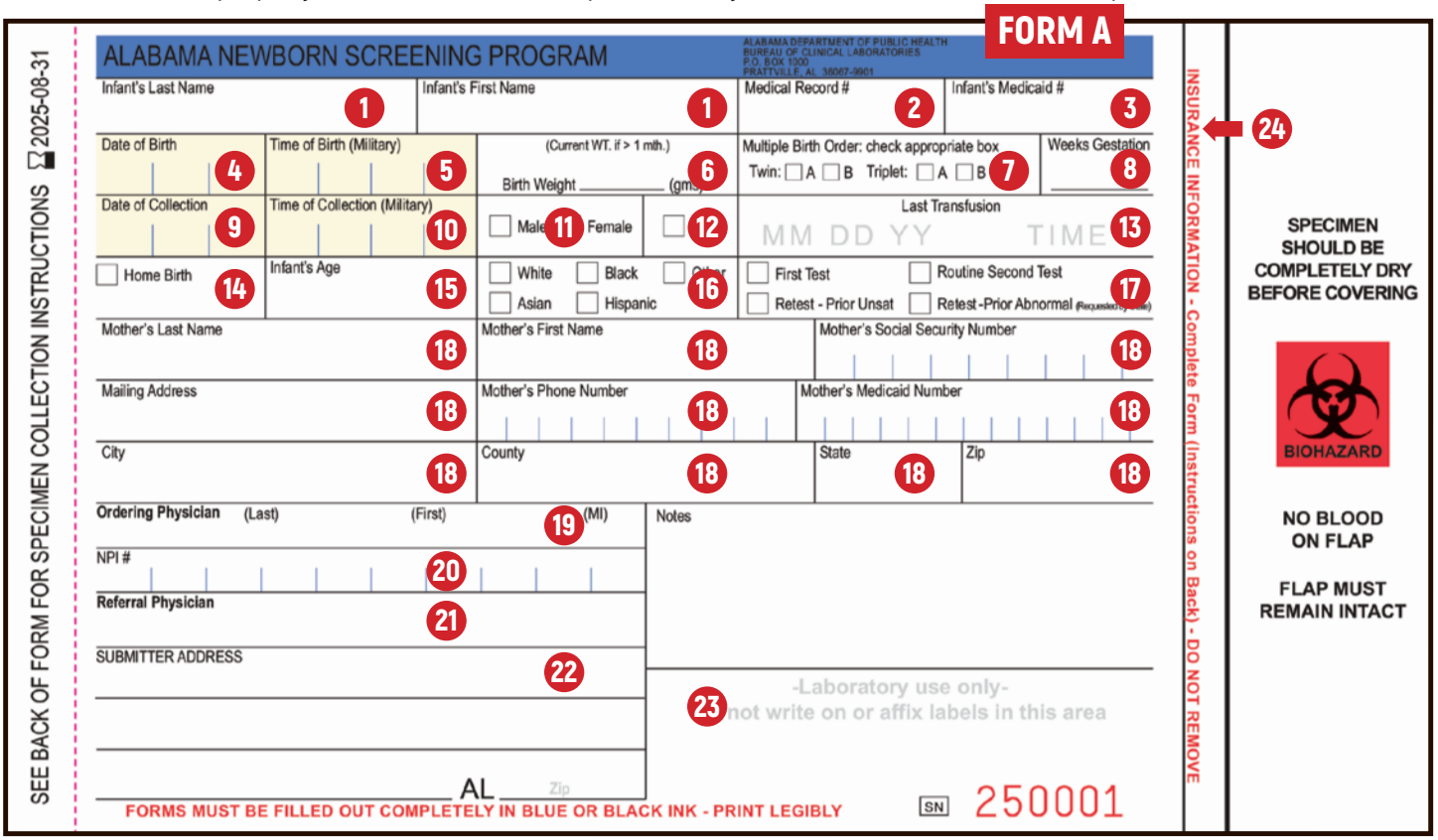
8. To mail DBS specimens, please use the basic triple-packaging system:
   - Primary container – filter paper that contains absorbed and dried blood
   - Secondary container – fold over flap envelope to secure the contents
   - Third container – outer envelope of sturdy, high quality paper

CLSI. *Blood Collection on Filter Paper for Newborn Screening Programs; Approved Standard–Sixth Edition.* CLSI document NBS01-A6. Wayne, PA: Clinical and Laboratory Standards Institute; 2013.

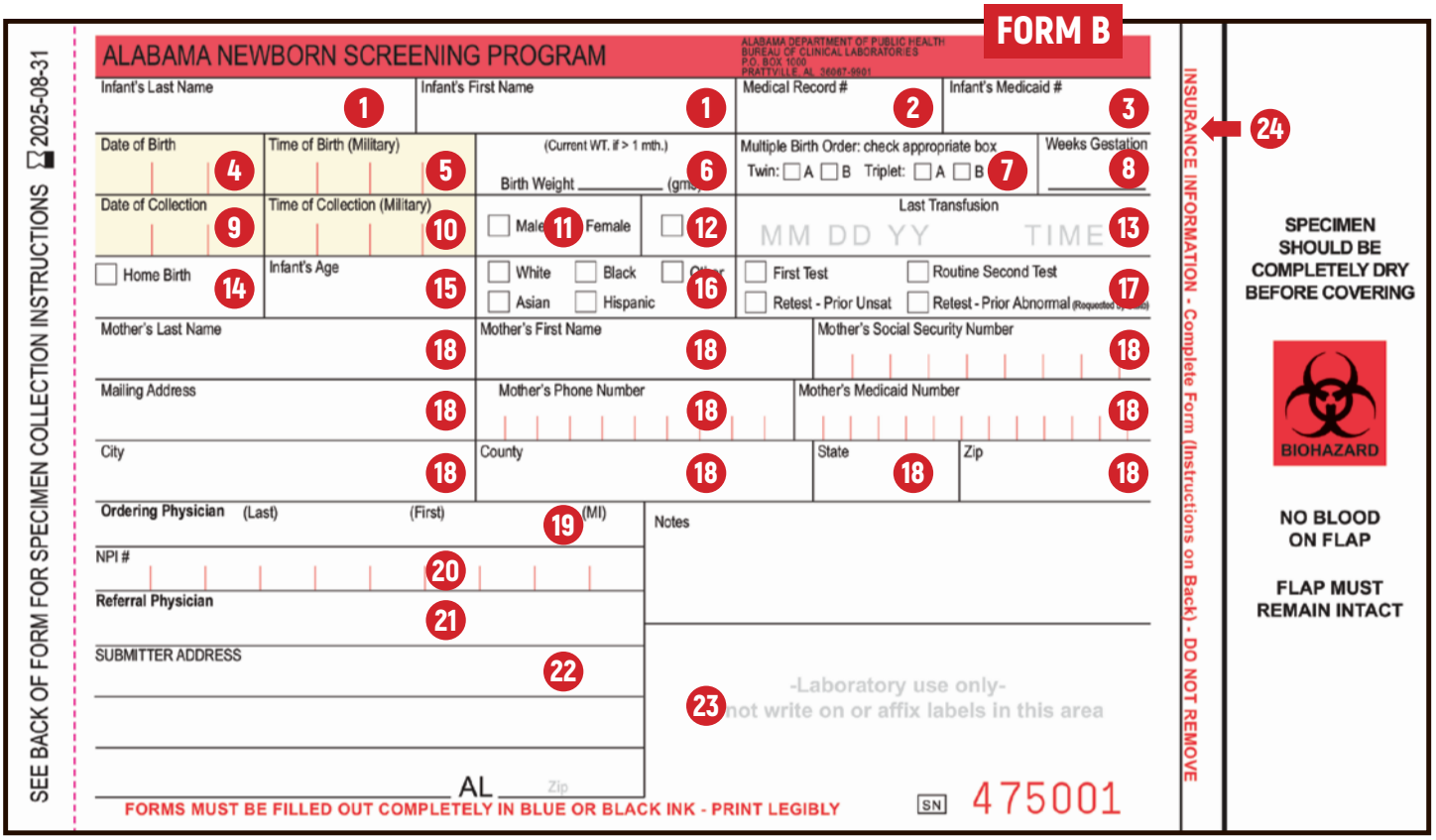
NEWBORN SCREENING COLLECTION GUIDELINES

Always complete the specimen collection form using a black or blue ball point pen and print legibly to ensure that the patient is identified properly. These forms are examples and may not be current. These forms expire 8-31-2025.

FORM A



FORM B



NEWBORN SCREENING COLLECTION GUIDELINES

1	**Name field –** enter the patient's last name and first name (if applicable).
2	**Medical Record field –** enter the patient's medical record number. This number is for the submitting facility to identify the patient when the report is received.
3	**Medicaid field –** enter the infant's Medicaid number if applicable.
4	**Birth date field –** enter the birth date in the format MM/DD/YY (required field).
5	**Time of Birth field –** enter in military format, failure to use military format may result in erroneous test results since many lab tests are based on the age of the infant at the time of collection.
6	**Birth Weight field –** enter the infant's birth weight in **grams.** If the infant is more than one month of age, enter the current weight. The laboratory sets standards and cutoffs for some tests using weight. Indicating the weight helps to ensure accurate test results and eliminate the need for unnecessary repeat specimens.
7	**Multiple Birth Order field –** complete **only** if there is a multiple birth. Enter the birth order as A, B, C, etc.
8	**Gestational Age field –** enter the gestational age as number of completed weeks.
9	**Date of Collection –** enter the date of collection in the format MM/DD/YY (required field).
10	**Time of Collection –** enter the time of collection in military format (required field)
11	**Sex field –** check appropriate box
12	**TPN field –** If infant is receiving TPN feeding at time of collection, check the box
13	**Last Transfusion field –** Complete this box with the date and time of the infant's last transfusion of **red blood cells.** Date should be entered as MM/DD/YY and time in military format. The date and time of transfusion are important for the laboratory to determine whether the results are valid. Failure to indicate transfusions can result in an infant with a NBS disorder being missed due to the presence of donor cells in the specimen.
14	**Home birth field –** check the home birth box if the infant was born outside of the birthing facility with a birthing attendant present.
15	**Infant's Age field –** enter the infant's age at the time of specimen collection.
16	**Race field –** mark the appropriate box for the infant's race.
17	**Type of Tests field -** mark the "First Test" box if the specimen is the first one collected on this infant. Mark the "Routine Second Test" box if the specimen is the routine second test specimen collected on this infant. If a prior test on this infant was reported as unsatisfactory, mark the "Retest-Prior Unsat" box. If a prior test on this infant was abnormal and the State Laboratory requested a repeat sample, mark the "Retest-Prior Abnormal" box.
18	**Mother's Information fields –** enter the mother's information in the appropriate fields. ***Mother's social security number should be entered accurately.*** This will allow the submitting facility to access test results more readily and ensures that infants needing immediate follow-up can be located quickly.
19	**Ordering Physician field –** enter the **full name** of the physician who has ordered the NBS tests. ***This information is required to be provided and complete.***
20	**NPI field -** enter the National Provider Identification **9 digit** number for the **ordering physician.** ***This information is required to be provided and complete.***
21	**Referral Physician field –** enter the **full name** of the physician who will be caring for the infant. This physician will be contacted if the infant has a potential NBS disorder and his/her name will be listed as the physician on the NBS laboratory report. (This physician may be the same as the ordering physician – but should be entered in this field as instructed)
22	**Submitter field –** enter the name and address of the facility submitting the specimen. Do not use abbreviations as there are facilities with similar names. An address label may be attached in this area as long as it does not obscure other fields or hang off of the edge. ***This information is required to be complete and accurate.***
23	**Lab use field -** Do not write or place labels in this area. This space is used by the laboratory to attach a unique identification number to the specimen for use in the laboratory.
24	**INSURANCE FORM - Insurance information MUST be entered completely and accurately. This sheet should not be removed from the NBS form.**

EXAMPLES

SEE BACK OF FORM FOR SPECIMEN COLLECTION INSTRUCTIONS ☑ 2025-08-31

ALABAMA NEWBORN SCREENING PROGRAM

ALABAMA DEPARTMENT OF PUBLIC HEALTH
BUREAU OF CLINICAL LABORATORIES
P.O. BOX 1000
PRATTVILLE, AL 36067-9901

Infant's Last Name: DOE	Infant's First Name: BABY	Medical Record #: 134521	Infant's Medicaid #: 500001234567

Date of Birth: 01 / 15 / 21	Time of Birth (Military): 0 3 2 0	(Current WT. if > 1 mth.) Birth Weight: 2250 (gms)	Multiple Birth Order: check appropriate box — Twin: [X] A [ ] B Triplet: [ ] A [ ] B [ ] C	Weeks Gestation: 38 WKS
Date of Collection: 01 / 16 / 21	Time of Collection (Military): 0 3 0 0	[ ] Male [X] Female [ ] TPN	Last Transfusion: MM / DD / YY TIME 01/ 16 / 21 01:50
[ ] Home Birth	Infant's Age: 24 HRS	[ ] White [ ] Black [ ] Other [X] Asian [ ] Hispanic	[X] First Test [ ] Routine Second Test [ ] Retest - Prior Unsat [ ] Retest - Prior Abnormal (Requested by State)

Mother's Last Name: DOE	Mother's First Name: JANE	Mother's Social Security Number: 4 9 9 9 9 9 9 9 9
Mailing Address: 123 NEW BABY DR	Mother's Phone Number: 3 3 3 2 9 5 3 3 3 3	Mother's Medicaid Number: 5 0 0 0 0 9 9 9 9 9 9 9
City: HUNTSVILLE	County: MADISON	State: AL / Zip: 35801

Ordering Physician (Last): HOWSER (First): DOOGIE (MI):

NPI #: 1 4 1 1 3 4 4 1 1 1

Referral Physician: PEDIATRIC PEDS

SUBMITTER ADDRESS: EASTMAN HOSPITAL
456 HOSPITAL DR
HUNTSVILLE AL 35801 ZIP

Notes

-Laboratory use only-
Do not write on or affix labels in this area

FORMS MUST BE FILLED OUT COMPLETELY IN BLUE OR BLACK INK - PRINT LEGIBLY

SN 250001

INSURANCE INFORMATION - Complete Form (Instructions on Back) - DO NOT REMOVE

SPECIMEN SHOULD BE COMPLETELY DRY BEFORE COVERING

BIOHAZARD

NO BLOOD ON FLAP

FLAP MUST REMAIN INTACT

SEE BACK OF FORM FOR SPECIMEN COLLECTION INSTRUCTIONS ☑ 2025-08-31

ALABAMA NEWBORN SCREENING PROGRAM

ALABAMA DEPARTMENT OF PUBLIC HEALTH
BUREAU OF CLINICAL LABORATORIES
P.O. BOX 1000
PRATTVILLE, AL 36067-9901

Infant's Last Name: DOE	Infant's First Name: BAMBI	Medical Record #: 345-2	Infant's Medicaid #: 500001234567

Date of Birth: 01 / 15 / 21	Time of Birth (Military): 0 3 2 0	(Current WT. if > 1 mth.) Birth Weight: 2250 (gms)	Multiple Birth Order: check appropriate box — Twin: [X] A [ ] B Triplet: [ ] A [ ] B [ ] C	Weeks Gestation: 38 WKS
Date of Collection: 02 / 15 / 21	Time of Collection (Military): 0 3 0 0	[ ] Male [X] Female [ ] TPN	Last Transfusion: MM / DD / YY TIME 01/16 /21 01:50
[ ] Home Birth	Infant's Age: 4 WKS	[ ] White [ ] Black [ ] Other [X] Asian [ ] Hispanic	[ ] First Test [X] Routine Second Test [ ] Retest - Prior Unsat [ ] Retest - Prior Abnormal (Requested by State)

Mother's Last Name: DOE	Mother's First Name: JANE	Mother's Social Security Number: 4 9 9 9 9 9 9 9 9
Mailing Address: 123 New Baby Dr.	Mother's Phone Number: 3 3 3 2 9 5 3 3 3 3	Mother's Medicaid Number: 5 0 0 0 0 9 9 9 9 9 9 9
City: Huntsville	County: Madison	State: AL / Zip: 35801

Ordering Physician (Last): McStuffins (First): Doc (MI):

NPI #: 1 0 1 0 1 0 1 0 1 0

Referral Physician: McStuffins, Doc

SUBMITTER ADDRESS: Pediatric Peds
1001 Peds Dr.
Huntsville AL 35801 ZIP

Notes

-Laboratory use only-
Do not write on or affix labels in this area

FORMS MUST BE FILLED OUT COMPLETELY IN BLUE OR BLACK INK - PRINT LEGIBLY

SN 475001

INSURANCE INFORMATION - Complete Form (Instructions on Back) - DO NOT REMOVE

SPECIMEN SHOULD BE COMPLETELY DRY BEFORE COVERING

BIOHAZARD

NO BLOOD ON FLAP

FLAP MUST REMAIN INTACT

SICK INFANT BLOOD COLLECTION GUIDELINES

Sick Infant and Well Baby Newborn Screening Blood Collection Algorithm, February 22, 2016

The following newborn screening algorithm has been developed by a task force of professional medical providers and consultants and has been approved by the Alabama Newborn Screening Advisory Committee. These recommedations are in keeping with the recommendations of the Clinical Laboratory Standards Institute (CLSI) as well as the standards required by the Alabama Department of Publich Health Laboratory.

BIRTH OF PRETERM, LBW OR SICK NEWBORN

Serial screening, with the collection of three specimens, is proposed as the most expedient and efficient paradigm for this population (CLSI Preterm, LBW, and Sick Newborns, page 19)

Transfer/Arrival NICU NBS Specimen

Collect the **"arrival NICU"** NBS specimen on admission to the NICU (if not already collected) **regardless of age*** before any other treatments are begun (transfusions, TPN or antibiotics). If transferred, **the transfer hospital** should collect a specimen on Form A before transported unless infant is unstable. **The receiving hospital,** on admission, should collect a specimen on a second test form (Form B) and mark the "First Test" box.

***For most preterm and LBW newborns, admission to the NICU occurs immediately after birth, usually 1 to 2 hours of age, or up to 24 hours of age. If an infant is 24 hours of age or older on admission to the NICU, repeat screening should be done according to local program recommendations for normal infants unless there were abnormalities on the initial specimen (CLSI, page 20).**

Acute NICU NBS Specimen

Collect the **"acute NICU" NBS specimen at 48-72 hours of life on infants initially tested at <24 hours of age at first screen.**

- **If receiving blood** - wait and collect 72 hours after the last transfusion.
- **If on TPN** - collect acute screen plus an additional screen when TPN is discontinued.

Final NICU NBS Specimen

Collect the **"final routine NICU"** NBS specimen at **28 days of age** or at discharge, whichever comes first, for any infant in the NICU > 2 weeks of age. All NICU infants discharged before 2 weeks of age should have the recommended routine NBS specimen collected by their pediatrician at 2-6 weeks of age.

BIRTH OF FULL-TERM OR WELL NEWBORN

Initial NBS Specimen

Collect an initial NBS specimen at **24-48 hours of age** (mail within 24 hours).

- Collect the first sample on a First Test Form (A Form) and any subsequent samples on a second test form (B Form).
- If the infant is discharged prior to 24 hours of age, a specimen must be obtained before discharge, and the parent or guardian must be informed of the importance of obtaining a second test before one week of age.

Routine Repeat NBS Specimen

Collect a recommended routine second NBS specimen at **2-6 weeks of age.**

- This specimen is not routinely tested for Hemoglobinopathies or Severe Combined Immunodeficiencies.
- Collect on a Second Test Form (B Form)

Note: If results from the first or second newborn screens place infant at high suspicion for a condition, appropriate confirmatory or diagnostic tests should be done, being alert to the effects that treatments and the infant's condition may have on the screening test results.

If a well infant has had 2 newborn screens collected or a sick infant has had 4 screens collected (check Secure Remote Viewer to determine), please contact the NBS Lab at 334-290-3097, or the NBS Follow-up Program at 334-206-5556 for follow-up issues.

NEWBORN SCREENING COLLECTION GUIDELINES

Alabama Department of Public Health
Bureau of Clinical Laboratories
Newborn Screening Blood Collection Guidelines

These guidelines have been provided for newborn screening providers in order to inform and instruct on the proper techniques of collecting a high-quality specimen, for handling it after it has been collected, and for transporting it to the testing facility. These guidelines are in keeping with the recommendations of the Clinical Laboratory Standards Institute® (CLSI) as well as the standards required by the Alabama Department of Public Health, Bureau of Clinical Laboratories.

For further guidance please refer to the *CLSI® Blood Collection on Filter Paper for Newborn Screening Programs; Approved Standard,* which addresses the issues associated with specimen collection, the filter paper collection device, the application of blood to the filter paper, and uniform techniques for collecting the best possible specimen for use in newborn screening programs.

Sharon P. Massingale

1/24/2025

Sharon Massingale, Ph.D., HCLD/CC (ABB)
Public Health Laboratory Director
Bureau of Clinical Laboratories

Date

1/24/2025

Aretha M. Williams, PhD
Assistant Public Health Laboratory Director
Bureau of Clinical Laboratories

Date

Stacey Hall

1/24/2025

Stacey Hall
Newborn Screening Laboratory Manager
Bureau of Clinical Laboratories

Date

NBS SPECIMEN COLLECTION TIPS

Newborn screens can have a dramatic impact on the welfare of the infant and the family. It is important to understand the significance of screening both from a medical outcome and a legal liability standpoint.

1. Storage of the filter paper both pre-use and post-use is very important. If the paper is stored in a dry, hot environment such as an unventilated warehouse it will affect the performance of the paper. Always try to store filter paper at room temperature and room humidity. Post-use storage should be in keeping with NBS lab guidance (©ID Biological Systems Report).
2. The type of lancet used can have a definite effect on the specimen collected. The "switch blade" type lancet achieves better blood flow than the puncture type. This could make a difference in your blood collection (©ID Biological Systems Report).
3. Only allow **well-trained** individuals to collect newborn screening blood in order to reduce unsatisfactory specimens.
4. Track the performance of these collectors and re-train or substitute as necessary if unsatisfactory or invalid results occur.
5. **Perform a quality control inspection** of all specimens before mailing them to the State Laboratory. At a minimum check for the following:
   - Complete and correct demographic information. **Any corrections should be legible and initialed.**
   - Record the name of the person that collected the sample.
   - Inspect the blood spots for specimen quality and quantity before mailing.
   - Allow specimens to dry first and then review a second time prior to mailing. A specimen may appear uniform when wet but when dry may reveal uneven saturation (dark spots).
   - Confirm results are received on each specimen submitted.

If you believe you are having issues with specimen collection, please contact the NBS Nurse Educator at 334-358-2081 or the NBS State Health Laboratory at 334-290-3097. You may also refer to the Clinical and Laboratory Standards Institute® (CLSI) Screening Collection Manual (copies provided to all birthing centers).

Remember: *Collection technique will not improve overnight. It takes practice to become proficient with newborn screening specimen collection.*

Whatman®
Part of GE Healthcare

Neonatal Screening

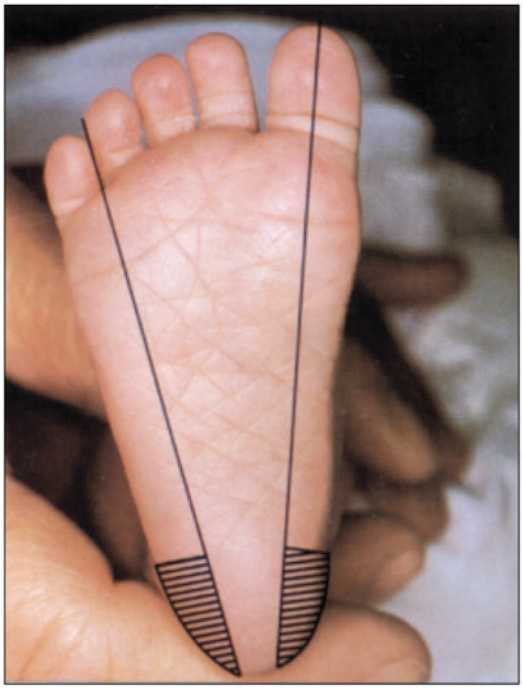
Blood Specimen Collection and Handling Procedure



1 Necessary equipment: sterile lancet with tip approximately 2.0 mm, sterile alcohol prep, sterile gauze pads, soft cloth, blood collection form, gloves.



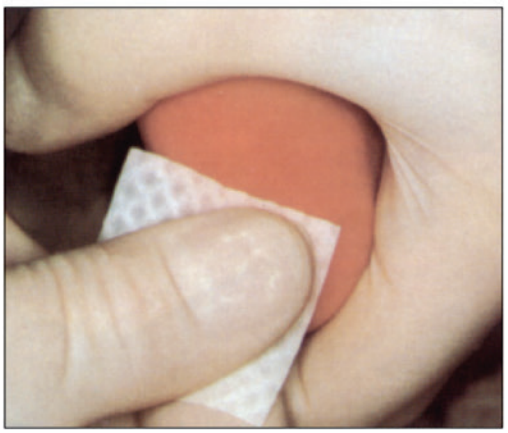
2 Complete ALL information. Do not contaminate filter paper circles by allowing the circles to come into contact with spillage or by touching before or after blood collection. Keep "SUBMITTER COPY" if applicable.



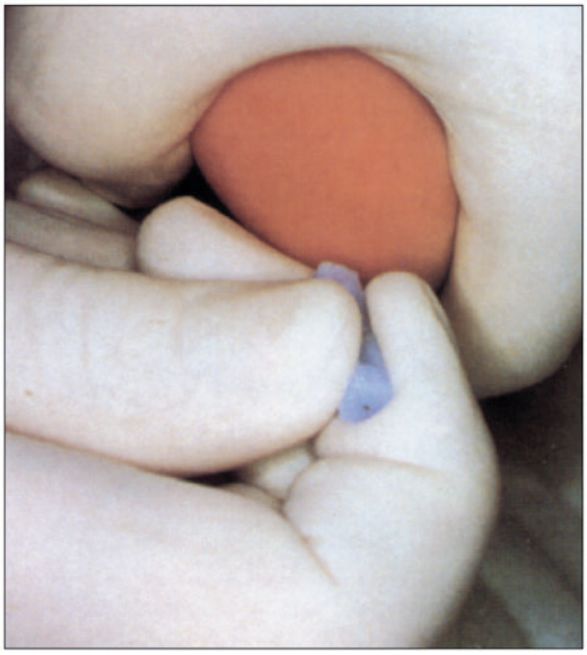
3 Hatched area ( ) indicates safe areas for puncture site.



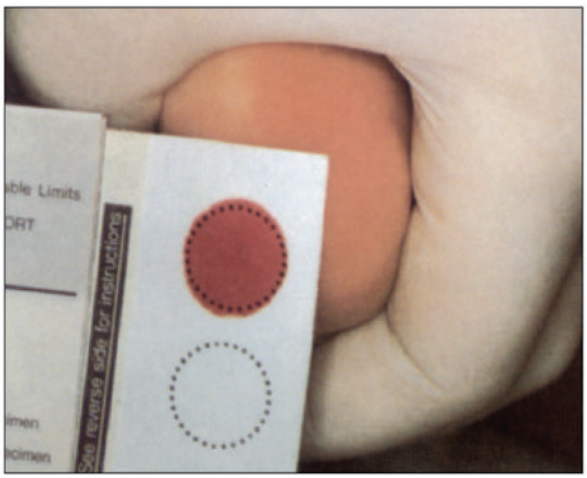
4 Warm site with soft cloth, moistened with warm water up to 41° C, for three to five minutes.



5 Cleanse site with alcohol prep. Wipe DRY with sterile gauze pad.



6 Puncture heel. Wipe away first blood drop with sterile gauze pad. Allow another LARGE blood drop to form.



7 Lightly touch filter paper to LARGE blood drop. Allow blood to soak through and completely fill circle with SINGLE application of LARGE blood drop. (To enhance blood flow, VERY GENTLE intermittent pressure may be applied to the area surrounding the puncture site). Apply blood to one side of filter paper only.



8 Fill remaining circles in the same manner as step 7, with successive blood drops. If blood flow is diminished, repeat steps 5 through 7. Care of skin puncture site should be consistent with your institution's procedures.



9 Dry blood spots on a dry, clean, flat, non-absorbent surface for a minimum of four hours.



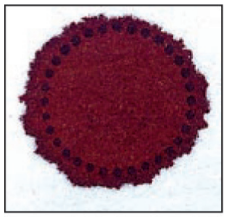
10 Mail completed form to testing laboratory within 24 hours of collection.

Information provided by The New York State Department of Health.

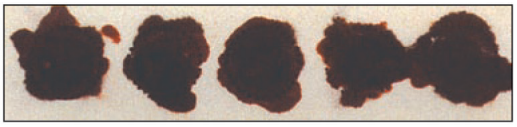
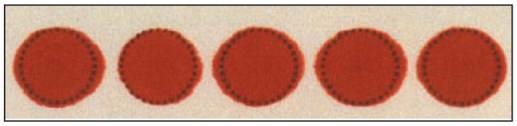
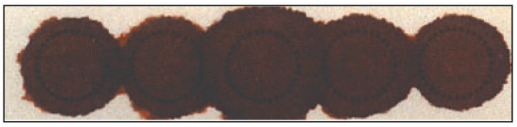
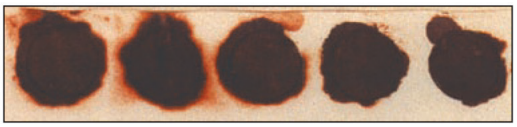
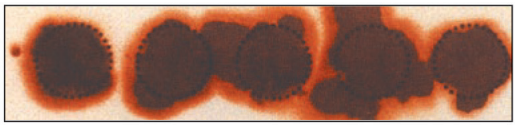
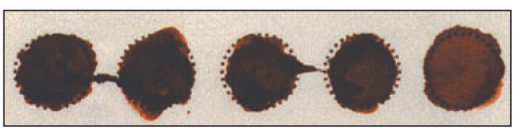
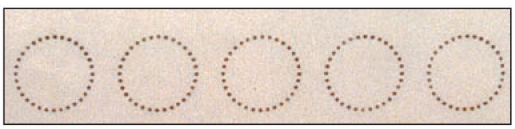
North America – Whatman Inc. • Tel: 1-800-WHATMAN • Tel: 1-973-245-8300 • Fax: 1-973-245-8329 • E-mail: info@whatman.com
Europe – Whatman International Ltd • Tel: +44 (0) 1622 676670 • Fax: +44 (0) 1622 691425 • E-mail: information@whatman.com
Japan – Whatman Japan KK • Tel: +81 (0) 3 5215 1240 • Fax: +81 (0) 3 5215 1245 • E-mail: japaninfo@whatman.com
Asia Pacific – Whatman Asia Pacific Pte Ltd • Tel: +65 6534 0138 • Fax: +65 6534 2166 • E-mail: wap@whatman.com

51684 3/08

SIMPLE SPOT CHECK



Valid specimen:
Allow a sufficient quantity of blood to soak through to completely fill the preprinted 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 Specimen	Possible Causes
1. Specimen quantity insufficient for testing. 	· Removing filter paper before blood has completely filled circle of before blood has soaked through to second side. · Applying blood to filter paper with a capillary tube. · Allowing filter paper to come into contact with gloved or ungloved hands or substances such as hand lotion or powder, either before or after blood specimen collection.
2. Specimen appears scratched or abraded. 	· Applying blood with a capillary tube or other device.
3. Specimen not dry before mailing. 	· Mailing specimen before drying for a minimum of four hours.
4. Specimen appears supersaturated. 	· Applying excess blood to filter paper, usually with a device. · Applying blood to both sides of filter paper.
5. Specimen appears diluted, discolored or contaminated. 	· Squeezing or "milking" of area surrounding the puncture site. · Allowing filter paper to come into 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.
6. Specimen exhibits serum rings. 	· Not wiping alcohol from puncture site before making skin puncture. · Allowing filter paper to come into contact with alcohol, hand lotion, etc. · Squeezing area surrounding puncture site excessively. · Drying specimen improperly. · Applying blood to filter paper with a capillary tube.
7. Specimen appears clotted or layered. 	· Touching the same circle on filter paper to blood drop several times. · Filling circle on both sides of filter paper.
8. No blood. 	· Failure to obtain blood specimen.

DEPARTMENT OF PUBLIC HEALTH
SCOTT HARRIS, M.D., M.P.H.
STATE HEALTH OFFICER

BUREAU OF CLINICAL LABORATORIES
DONALD E. WILLIAMSON, M.D. STATE HEALTH LABORATORY
Sharon P. Massingale, Ph.D., HCLD/CC(ABB)
Laboratory Director

Alabama Newborn Screening Program

Reorder Form

In order to assure that you have an adequate supply of newborn screening materials available, complete this form and mail or fax it to the State Health Laboratory at the address below when your stock has reached a **2-4 week** supply.

ALABAMA DEPARTMENT OF PUBLIC HEALTH
Bureau of Clinical Laboratories
Newborn Screening Division
204 Legends Court, Zip 36066-7893
P.O. Box 1000, Zip 36067-9901
Prattville, AL

FAX: (334) 206-3780

Name of Hospital, Practice, or Physician: _____

Street/Shipping Address **ONLY (No P.O. Box)**: _____

City, State, and Zip Code: _____

Telephone Number: _____

Name and Title: _____
(*Please Print)*

Please indicate the number of newborn infants that you screen per month: _____

Number of "**A**" (first test) Newborn Screening Forms Requested: _____
**Note "A" forms are sent to hospitals and birthing centers only.*

Number of "**B**" (second test) Newborn Screening Forms Requested: _____

NOTE: All orders will be shipped within 5 working days of receipt. Please plan your orders accordingly. We cannot make emergency shipments.

NBS Lab Phone: (334) 290-3097

MAILING ADDRESS: POST OFFICE BOX 1000 | PRATTVILLE, AL 36067-9901
PHYSICAL ADDRESS: 204 LEGENDS COURT | PRATTVILLE, AL 36066-7893
EMAIL ADDRESS: clab@adph.state.al.us

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10/30/2024

DEPARTMENT OF PUBLIC HEALTH
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Laboratory Director

Alabama Newborn Screening Program

Provider Update Form

In order to offer more efficient service in providing Newborn Screening forms and patient reports, we are updating our provider list. It would be of great assistance to us if you would fill out the following information and return it to:

ALABAMA DEPARTMENT OF PUBLIC HEALTH
Bureau of Clinical Laboratories
Newborn Screening Division
204 Legends Court, Zip 36066-7893
P.O. Box 1000, Zip 36067-9901
Prattville, AL
Phone: Laboratory (334) 290-3097
Newborn Screening IT (334) 290-6702
Fax:(334) 206-3780

Name of Hospital or Practice: _____

Street/Shipping Address: (Physical address): _____

City, State, and Zip Code: _____

Provide P.O. Box/ P.O. Zip if applicable: _____

Telephone Number: _____

Contact Name / Office Manager: _____

Names of **ALL** physicians or nurse practitioners who currently submit NBS specimens:

- Name: _____ NPI# _____

  Email address:_____

- Name: _____ NPI# _____

  Email address:_____

- Name: _____ NPI# _____

  Email address:_____

- Name: _____ NPI# _____

  Email address:_____

MAILING ADDRESS: POST OFFICE BOX 1000 | PRATTVILLE, AL 36067-9901
PHYSICAL ADDRESS: 204 LEGENDS COURT | PRATTVILLE, AL 36066-7893
EMAIL ADDRESS: clab@adph.state.al.us

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Laboratory Director

Alabama Newborn Screening Program

Provider Lab Result Request Form

To offer efficient service in providing Newborn Screening patient reports to requesting providers, the Alabama Department of Public Health Bureau of Clinical Laboratories Newborn Screening Division requires the completion of the following information:

Name of Requesting Facility: _____

Facility Mailing Address: _____

City, State, Zip: _____

Facility Telephone Number: _____ Facility Fax Number: _____

Infant's Last Name: _____ Infant's First Name: _____

Infant's Date of Birth: _____ Infant's Gender: _____

Hospital of Birth: _____

Mother's Last Name: _____ Mother's First Name: _____

Mother's Address (at the time of the infant's birth): _____

_____

_____

Fax Request(s) to BCL Newborn Screening Division (334)206-3780.

For assistance, please call the Newborn Screening Division at (334)290-3097.

Newborn Screening patient results will be mailed to the requesting facility's address above.

MAILING ADDRESS: POST OFFICE BOX 1000 | PRATTVILLE, AL 36067-9901
PHYSICAL ADDRESS: 204 LEGENDS COURT | PRATTVILLE, AL 36066-7893
EMAIL ADDRESS: clab@adph.state.al.us

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