TRAINING UPDATE

Lab Location:	SGMC and WOMC	**Date Implemented:**	8/27/2024
Department:	Phlebotomy	**Due Date:**	9/24/2024

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

- Heel Stick Specimen Collection
- Pediatric Collection

Description of change(s):

Added to both procedures that heel stick is **not** recommended in the following situations:

1. When the test does not allow for capillary collection (ie coagulation testing)
2. When the provider specifically requests venous collection
3. When more than 3 microtainer tubes must be collected at one time
4. When the heel stick procedure has already been attempted unsuccessfully twice
5. When a heel stick has already been performed and the specimen was rejected by the laboratory due to clotting, hemolysis, or another collection issue that requires redraw

Also added that whenever possible, two phlebotomists should work together to complete neonatal collections. If a second phlebotomist is not available, the phlebotomist should ask for assistance from the nurse (in patient) or parent (outpatient).

AHC.P02 Heelstick Specimen Collection

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Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Lab Director	12/27/2022	3.0	*Nicolas Cacciabeve MD* Nicolas Cacciabeve	
Approval	Field Ops approval	12/27/2022	3.0	Stephanie Codina	
Periodic review	FO approval	5/18/2021	2.0	Stephanie Codina	
Periodic review	FO approval	4/30/2019	2.0	Stephanie Codina	
Approval Captured outside MediaLab	Lab Director	7/10/2017	2.0	Nicolas Cacciabeve	Recorded on 11/28/2018 by Leslie Barrett (104977) when document added to MediaLab
Periodic review Captured outside MediaLab	Designated Reviewer	7/10/2017	2.0	Nicolas Cacciabeve	Recorded on 11/28/2018 by Leslie Barrett (104977) when document added to MediaLab

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Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
3.0	Approved and Current	Major revision	12/23/2022	12/27/2022	Indefinite
2.0	Retired	First version in Document Control	11/28/2018	7/24/2017	12/27/2022

Linked Documents

- AG.F382 Capillary Tube Order of Draw for Multiple Tube Collections

Non-Technical SOP

Title	Heel Stick Specimen Collection	
Prepared by	Samson Khandagale	Date: 3/19/2009
Owner	Stephanie Codina	Date: 8/27/2024

Laboratory Approval		
Print Name and Title	**Signature**	**Date**
Refer to the electronic signature page for approval and approval dates.		

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1. PURPOSE

To describe the equipment, sites, and steps required to perform capillary blood collection via heel stick.

2. SCOPE

The heel stick procedure is used to collect blood from neonates and babies under the age of 1 year. The heel stick procedure is not recommended in the following situations:

- When the test does not allow for capillary collection (ie coagulation testing).
- When the provider specifically requests venous collection.
- When more than 3 microtainer tubes must be collected at one time.
- When the heel stick procedure has already been attempted unsuccessfully twice.
- When a heel stick has already been performed and the specimen was rejected by the laboratory due to clotting, hemolysis, or another collection issue (redraw).

3. RESPONSIBILITY

All phlebotomists must understand and adhere to this procedure when performing heel stick collections.
The non-technical supervisor/manager is responsible for the content and review of the procedure.

4. DEFINITIONS

Capillary collection: The technique of pricking the skin of the fingertip or heel to obtain a blood specimen from the tiny vessels near the surface.

5. PROCEDURE

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Step	Action
1	Laboratory staff members are only allowed to collect blood specimens with a valid order. Refer to the patient identification and specimen labeling procedure for additional details.
2	Introduce yourself to the patient using AIDET technique (Acknowledge, Introduce, Duration, Explanation, Thank you).
3	Wash hands and don latex-free gloves.
4	Identify the patient per procedure.
5	Assemble the supplies needed for the capillary collection in the presence of the patient. Do not place supplies directly on the patient or patient's bed. A. Latex-free gloves B. Alcohol prep pad (70% isopropyl alcohol) C. 2x2 sterile gauze D. Lancet (one that is designed to enter no deeper than 2-3 mm) E. Warming device F. Band-Aid or tape G. Collection tubes (ensure the expiration date of tubes has not been exceeded) H. Biohazard sharps container

Step	Action
6	Determine the site to be used for blood collection. A. The best location for a heel puncture is the most medial or lateral portions of the plantar surface of the heel, not on the posterior curvature to avoid the calcaneus. B. Never punctures on the posterior curvature of the foot. Skin puncture on this area may result in injury to the nerves, tendons, and cartilage. C. Do not puncture through previous sites that may be infected.
7	Apply a warming device to the puncture site for 3-4 minutes. This will allow the blood flow to increase up to sevenfold to this area. **Note**: A heel-warmer is regulated and will maintain an even heat source for capillary response and flow. Other means to warm the skin may cause burning or hemolysis.
8	Whenever possible, the infant should be positioned on his/her back (supine position). This allows the foot to hang lower than the torso and improves blood flow.
9	Cleanse the puncture site with an alcohol prep pad. A. Begin at the venipuncture site and rub outward in concentric circles. B. Allow the alcohol to air dry completely before proceeding. Disinfection occurs by air drying and wet alcohol can hemolyze the red blood cells.
10	Remove the closure from the tube(s) and place it on a convenient surface. The closure may also be nested on the base of the tube.

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Step	Action
11	Puncture the skin with an approved lancet. A. Remove the safety clip. Do not touch the trigger or the blade-slot. B. Hold the ankle area by placing your fingers on the on the bottom of the foot while placing your thumb behind the heel as shown. C. Raise the foot above the baby's heart level. D. Place the blade-slot surface of the device flush against the heel so that its center point is vertically aligned with the desired incision site. Ensure that both ends of the device are in contact with the skin and depress the trigger. E. Immediately discard the lancet device in a biohazard sharps container. F. Lower the foot so it is level with or below the baby. G. Wipe away the first drop of blood with gauze.
12	Determine which tube should be filled first based on the capillary tube order of draw.
13	Hold the microtainer tube at a 30-45° angle from the surface of the heel (puncture site). Touch the collector end reservoir to the drop of blood. After the first 2-3 drops of blood, the blood will freely flow to the bottom of the reservoir. Do not scrape the infant's heel with the microtainer tube. Note: Alternate pressing the lateral three fingers, followed by a milking motion of the second finger, to express blood. Relax the fingers for a few seconds periodically to allow refilling. Caution should be used to limit squeezing with the fingertips. Allowing large droplets to form will help to prevent hemolysis.

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Step	Action
14	Replace the closure by twisting and pressing cap downward until a snap is heard. Immediately mix the sample by inverting the filled tube a minimum of 10 times.
15	Fill the remaining tubes in the same manner. Be sure to follow the capillary tube order of draw.
16	When all tubes have been collected, cover the puncture site with gauze and hold pressure for 3-5 minutes or until bleeding stops. The parent (or another adult) can assist with this task if he/she is able.
17	Cover the puncture site with gauze and tape or a Band-Aid after the bleeding has stopped.
18	Insert an extender into the bottom of each microtainer tube, as required, and properly label each tube per procedure.
19	Recheck the tube labeling by comparing the name and MRN on each tube to the name and MRN on the patient's hospital ID band.
20	Place the specimens in a biohazard bag and seal. A. Do not put more than one patient's specimens in a bag. B. Never transport specimens that are not contained in a biohazard bag.
21	Clean the work area by discarding all used materials in the appropriate waste container. Do not leave any trash behind.
22	Thank the patient and wish him/her a good day.
23	Wash your hands and proceed to the next assignment.
24	Deliver the specimens to the laboratory by hand or pneumatic tube.

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Adverse Reactions

Follow these steps if an inpatient experiences an adverse reaction during the blood collection process. Follow the procedure, "Outpatient Emergency Assistance" if an outpatient experiences an adverse reaction during the blood collection process.

Step	Action
1	Immediately discontinue the collection procedure.
2	Press the nurse call button and explain that the patient is having an adverse reaction to the procedure. Do not leave the bedside until a nurse arrives.
3	Answer any questions that the patient/parent poses and assist the nurse as needed.
4	Ask the nurse when you can return to complete the procedure and document the nurse's name.
5	Document the adverse reaction on a PI/Variance form.
6	Reschedule the draw per procedure using code "NOTP" for "test not performed." Refer to procedure, "Rescheduling Blood Draws."
7	Return to redraw the patient at the rescheduled time. Check with the nurse before proceeding with the blood collection.

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Unobtainable Specimens

Step	Action
1	If a phlebotomist is not successful in obtaining a blood specimen after one heelstick, he/she may attempt to collect the sample one additional time. Do not attempt the patient more than twice.
2	If the phlebotomist is not successful after the second stick, he/she will: A. Notify the nurse that he/she was unable to obtain the specimen and another phlebotomist will return. It is recommended that the second phlebotomist perform a venipuncture for collection. B. Notify the supervisor, group lead, or field ops representative in charge to assign another phlebotomist. C. A second phlebotomist will be sent immediately for Timed, ASAP, or STAT collections D. For routine collections of other tests, the collection time will be rescheduled for the next hour.

Step	Action
3	Venous collection is recommended if a second phlebotomist must draw. If a second phlebotomist is unable to collect the specimen after 2 attempts, he/she will: A. Notify the nurse and request that the hospitalist be contacted to obtain the required specimen. B. Give the patient labels and appropriate collection tubes to the nurse. C. Reschedule the collection per the instructions above.

Safety Notes:

A Phlebotomist must NEVER ...

- Mix blood from one tube into another tube.
- Store or carry specimens in the pocket of a lab coat.
- Allow transporters or other hospital staff to deliver lab-collected specimens to the laboratory without prior approval from a supervisor or lead.
- Discuss reports or results with any patient.
- Use any phlebotomy equipment that has not been supplied by the laboratory on any patient.

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6. RELATED DOCUMENTS

SOP: Patient Identification and Specimen Labeling
SOP: Pediatric Collection
Form: Capillary Tube Order of Draw (AG.F382)

7. REFERENCES

1. Jacobs DS, et al, Laboratory Test Handbook, 4th edition, OH: Lexi-Comp Inc., 1996, 330-331.
2. Henry, J.B., MD (ed) *Clinical Diagnosis and Management by Laboratory Methods, 12th edition.* W.B. Saunders Company, 2001, pages 487-488.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes SOP P003.002		
000	11/4/13	Section 3: update title of staff performing. Add review responsibility Section 4: specify who performs infant venipuncture Section 5: add Newborn metabolic screen card Section 6: add Microvette® collection container, add apply mild pressure, update bandaging Section 7: add Finger Stick SOP Footer: version # leading zero's dropped due to new EDCS in use as of 10/7/13	S Khandagale	S Khandagale

1	7/5/17	Header: Added WAH Section 5: Updated wording and formatting for clarity. Added pictures. Re-numbered section (deleted separate equipment section) Section 6: Added order of draw	SCodina	NCacciabeve
2	12/23/22	Header: Changed WAH to WOMC and added FWMC Footer: Changed SOP prefix to AHC Cleaned up formatting to current standards	D Collier	NCacciabeve
3	8/27/24	Added recommendation to perform a venous draw if more than 3 microtainers are needed and when the original collection was unsuccessful due to collection (including cancelled specimens)	SCodina	NCacciabeve

9. ADDENDA AND APPENDICES

None

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AHC.P28 Pediatric Collection

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Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Lab Director	1/23/2024	2.0	Nicolas Cacciabeve MD Nicolas Cacciabeve	
Approval	Field Ops approval	1/23/2024	2.0	Stephanie Codina	
Periodic review	FO approval	5/31/2023	1.0	Stephanie Codina	
Periodic review	FO approval	5/18/2021	1.0	Stephanie Codina	
Periodic review	FO approval	4/30/2019	1.0	Stephanie Codina	
Approval Captured outside MediaLab	Lab Director	7/5/2017	1.0	Nicolas Cacciabeve	Recorded on 11/28/2018 by Leslie Barrett (104977) when document added to MediaLab
Periodic review Captured outside MediaLab	Designated Reviewer	7/5/2017	1.0	Nicolas Cacciabeve	Recorded on 11/28/2018 by Leslie Barrett (104977) when document added to MediaLab

Approvals and periodic reviews that occurred before this document was added to the MediaLab Document Control system may not be listed.

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Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
2.0	Approved and Current	Major revision	1/22/2024	1/23/2024	Indefinite
1.0	Retired	First version in Document Control	11/28/2018	7/24/2017	1/23/2024

Non-Technical SOP

Title	Pediatric Collection	
Prepared by	Samson Khandagale	Date: 4/21/2011
Owner	Stephanie Codina	Date: 1/19/2024

Laboratory Approval		
Print Name and Title	**Signature**	**Date**
Refer to the electronic signature page for approval and approval dates.		
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1. PURPOSE

The purpose of this document is to assist in the management of pediatric collections.

2. SCOPE

This procedure applies to blood collection procedures on children under 14 years of age.

3. RESPONSIBILITY

- Phlebotomy Manager or Supervisor is responsible for review, approval and update of this procedure.
- Phlebotomy Staff must comply with this procedure.

4. DEFINITIONS

N/A

5. PROCEDURE

Step	Action
1	The management of pediatric patients requires broader knowledge and more experience. Small veins, inability to control movement, patient fear, and parental anxiety all add significant stress to the collection process. Whenever possible, two people should be present when drawing neonates and pediatric patients. If a second phlebotomist is not available, ask the patient's nurse to assist for inpatients. The patient's parent may assist for outpatients.
2	The phlebotomist must assess the patient to determine which collection method is best. The child's age, test(s) requested, and volume of blood needed should be considered when determining a collection method. A. Heel stick collection is generally used for patients who are not yet walking (under 1 year in age). Heel stick is not recommended in the following situations: a. When the test does not allow for capillary collection (ie coagulation testing). b. When the provider specifically requests venous collection. c. When more than 3 microtainer tubes must be collected at one time. d. When the heel stick procedure has already been attempted unsuccessfully twice. e. When a heel stick has already been performed and the specimen was rejected by the laboratory due to clotting, hemolysis, or another collection issue (redraw). B. Fingerstick collection is generally used for young children and those who have small volumes of blood being collected. C. Venipuncture is used for older children, and when the physician or test dictates venous collection (coagulation tests require venous collection). Routine procedures apply.
3	The phlebotomist should clearly explain the procedure to the child and adult. A. Children are often fearful or apprehensive about having blood collected. B. Communicating with the parent and child is an important step in maintaining their confidence in your ability. a. Children under the age of six years won't always hear your words but they will comprehend your ability to maintain a calm, controlled atmosphere. b. Sitting on a stool or lowering yourself to maintain eye-to-eye contact with the child can make the child feel more comfortable. c. Use simple language when speaking to children. d. A confident friendly voice will help the child remain calm. e. Do not tell the child the procedure will not hurt.

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Step	Action
4	Whenever possible, minimize the amount of blood collected from pediatric patients. A. Review the minimum blood volumes needed for each test requested. Utilize the test directory as needed. B. Clarify the patient's weight with the responsible party (parent, guardian, physician). If the child's weight is unknown, contact the provider for the information. If the provider is unable to provide the weight AND there is a possibility that the volume of blood needed will exceed the limit, it is acceptable to bring the child to ED or the Outpatient Infusion Center to obtain a weight measurement. C. Use the patient's age and the chart in Appendix A to determine the maximum amount of blood that may be drawn from patients under the age of 14. D. If the minimum amount of blood needed exceeds the volume of blood we are allowed to collect at one time, a. Contact the ordering provider and ask him/her to prioritize with tests should be done first. b. Ask the patient to return in 3-5 to have any remaining tests performed. c. If the referring provider insists that all lab tests be collected at one time, document the name of the physician approving the volume on the facesheet along with the date and time. Obtain verbal consent from the parent or guardian and proceed with blood collection.
5	The parent should be asked to help restrain the child, if the child cannot hold still on his/her own. These holds may be used for venipuncture and capillary collections. A. If collecting blood on a table, (see appendix B). a. The parent will place one arm under the child's legs and the other arm under the head and neck for support. b. The parent will secure the child's with his/her upper body. c. One phlebotomist will immobilize the arm by gently pushing up on the elbow while holding the arm straight. d. A second phlebotomist will draw the blood after verbally confirming the child is held securely. B. If collecting blood in a phlebotomy chair, (see appendix C) a. The parent will sit in the phlebotomy chair with the child on his/her lap. b. The parent will hold the child firmly by crossing his/her arms across the chest and free arm c. The parent will wrap his/her legs around the child's legs to immobilize. d. One phlebotomist will immobilize the arm by gently pushing up on the elbow while holding the arm straight. e. A second phlebotomist will draw the blood after verbally confirming the child is held securely.

6. RELATED DOCUMENTS

- Venipuncture, Phlebotomy procedure
- Fingerstick, Phlebotomy procedure
- Heelstick, Phlebotomy procedure

7. REFERENCES

Patient Services BPT procedure, Pediatric Collection, QDPS03.STD, v2.1

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
000	6.16.2017	Header: Added WAH Section 5: Edited wording for clarity, incorporated minimization of blood volume SOP, added information about securing a child Section 6: Removed retired SOP Section 9: Added appendices Footer: Version # leading zero's dropped due to new EDCS in use as of 10/7/13.	SCodina	NCacciabeve
1	1/22/24	Header: changed WAH to WOMC Footer: changed SOP prefix to AHC Updated formatting to current standards	S Codina D Collier	NCacciabeve
2	8/27/24	Added recommendation that two people be present during neonatal/pediatric collections. Added suggestions for when a venipuncture is preferable to a heel stick.	SCodina	NCacciabeve

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9. ADDENDA AND APPENDICES

Appendix A: Maximum Blood Draw for Patients Under 14 Years
Appendix B: Cradle Hold
Appendix C: Chair Hold

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Appendix A

Maximum Blood Draw for Patients Under 14 Years

Weight (lbs)	Weight (Kg)	Maximum amount of blood to be drawn at one time	Maximum amount of blood to be drawn in one month
6-8	2.7-3.6	2.5 mL	23 mL
8-10	3.6-4.5	3.5 mL	30 mL
10-15	4.5-6.8	5 mL	40 mL
16-20	7.3-9.1	10 mL	60 mL
21-25	9.5-11.4	10 mL	70 mL
26-30	11.8-13.6	10 mL	80 mL
31-35	14.1-15.9	10 mL	100 mL
36-40	16.4-18.2	10 mL	130 mL
41-45	18.6-20.5	20 mL	140 mL
46-50	20.9-22.7	20 mL	160 mL
51-55	23.2-25.0	20 mL	180 mL
56-60	25.5-27.3	20 mL	200 mL
61-65	27.7-29.5	25 mL	220 mL
66-70	30.0-31.8	30 mL	240 mL
71-75	32.3-34.1	30 mL	250 mL
76-80	34.5-36.4	30 mL	270 mL
81-85	36.8-38.6	30 mL	290 mL
86-90	39.1-40.9	30 mL	310 mL
91-95	41.4-43.2	30 mL	330 mL
96-100	43.6-45.5	30 mL	350 mL

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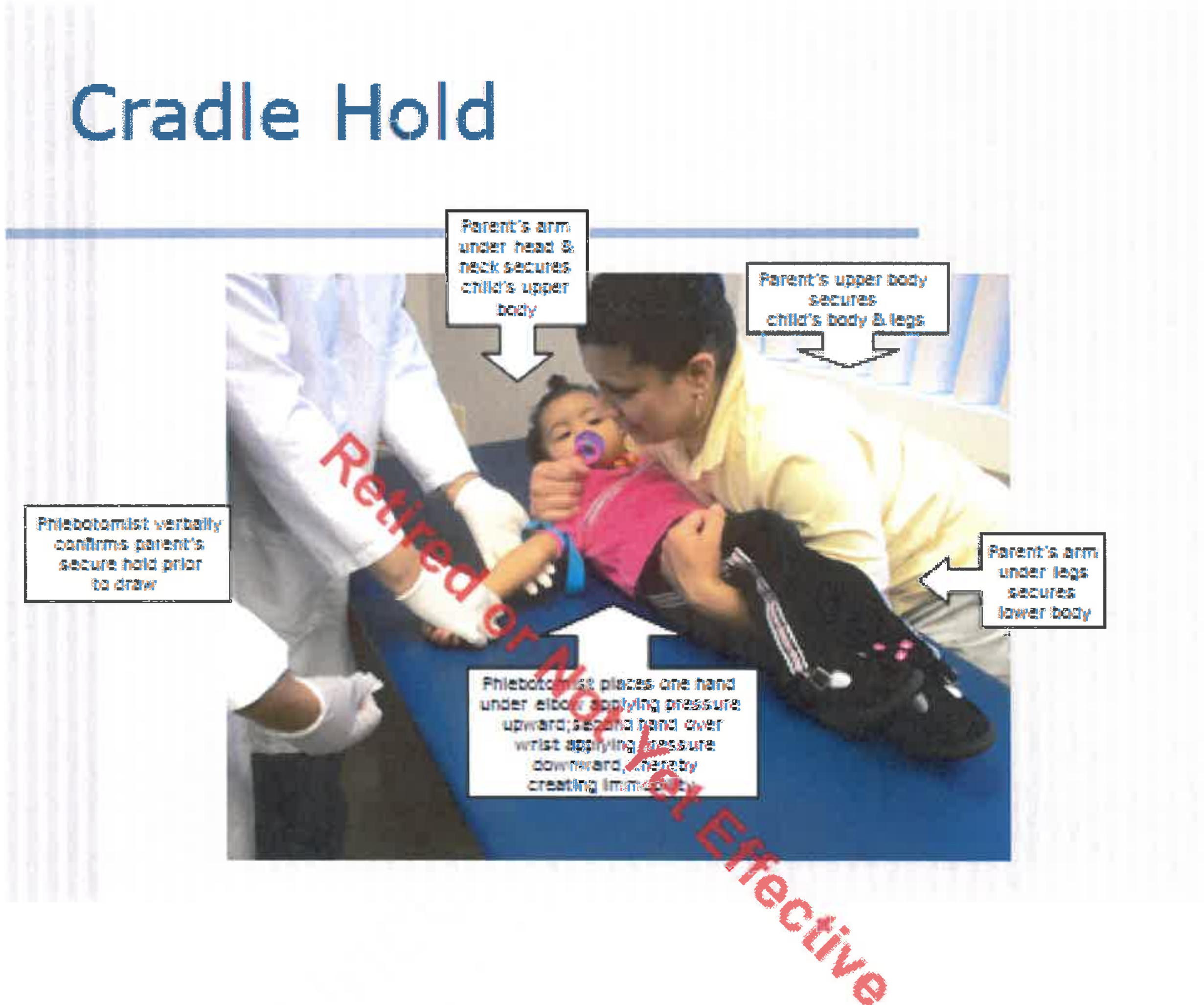
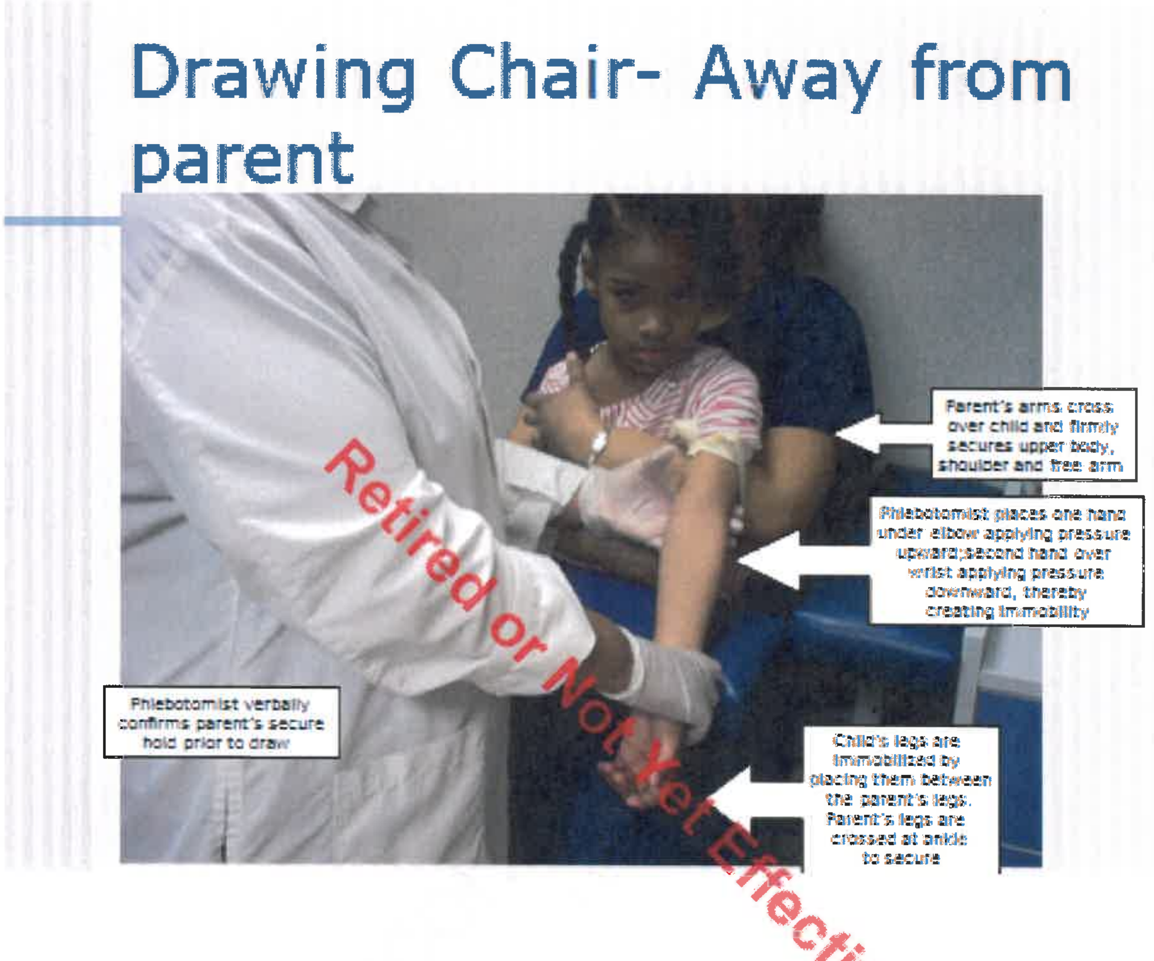
Appendix B

Cradle Hold



Appendix C

Chair Hold



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AHC.P28 Pediatric Collection

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Approval and Periodic Review Signatures

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1.0	Retired	First version in Document Control	11/28/2018	7/24/2017	1/23/2024

Non-Technical SOP

Title	**Pediatric Collection**	
Prepared by	Samson Khandagale	Date: 4/21/2011
Owner	Stephanie Codina	Date: 1/19/2024

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1. PURPOSE

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2. SCOPE

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3. RESPONSIBILITY

- Phlebotomy Manager or Supervisor is responsible for review, approval and update of this procedure.
- Phlebotomy Staff must comply with this procedure.

4. DEFINITIONS

N/A

5. PROCEDURE

Step	Action
1	The management of pediatric patients requires broader knowledge and more experience. Small veins, inability to control movement, patient fear, and parental anxiety all add significant stress to the collection process. Whenever possible, two people should be present when drawing neonates and pediatric patients. If a second phlebotomist is not available, ask the patient's nurse to assist for inpatients. The patient's parent may assist for outpatients.
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3	The phlebotomist should clearly explain the procedure to the child and adult. A. Children are often fearful or apprehensive about having blood collected. B. Communicating with the parent and child is an important step in maintaining their confidence in your ability. a. Children under the age of six years won't always hear your words but they will comprehend your ability to maintain a calm, controlled atmosphere. b. Sitting on a stool or lowering yourself to maintain eye-to-eye contact with the child can make the child feel more comfortable. c. Use simple language when speaking to children. d. A confident friendly voice will help the child remain calm. e. Do not tell the child the procedure will not hurt.

Retired or Not Yet Effective

Step	Action
4	Whenever possible, minimize the amount of blood collected from pediatric patients. A. Review the minimum blood volumes needed for each test requested. Utilize the test directory as needed. B. Clarify the patient's weight with the responsible party (parent, guardian, physician). If the child's weight is unknown, contact the provider for the information. If the provider is unable to provide the weight AND there is a possibility that the volume of blood needed will exceed the limit, it is acceptable to bring the child to ED or the Outpatient Infusion Center to obtain a weight measurement. C. Use the patient's age and the chart in Appendix A to determine the maximum amount of blood that may be drawn from patients under the age of 14. D. If the minimum amount of blood needed exceeds the volume of blood we are allowed to collect at one time, a. Contact the ordering provider and ask him/her to prioritize with tests should be done first. b. Ask the patient to return in 3-5 to have any remaining tests performed. c. If the referring provider insists that all lab tests be collected at one time, document the name of the physician approving the volume on the facesheet along with the date and time. Obtain verbal consent from the parent or guardian and proceed with blood collection.
5	The parent should be asked to help restrain the child, if the child cannot hold still on his/her own. These holds may be used for venipuncture and capillary collections. A. If collecting blood on a table, (see appendix B). a. The parent will place one arm under the child's legs and the other arm under the head and neck for support. b. The parent will secure the child's with his/her upper body. c. One phlebotomist will immobilize the arm by gently pushing up on the elbow while holding the arm straight. d. A second phlebotomist will draw the blood after verbally confirming the child is held securely. B. If collecting blood in a phlebotomy chair, (see appendix C) a. The parent will sit in the phlebotomy chair with the child on his/her lap. b. The parent will hold the child firmly by crossing his/her arms across the chest and free arm c. The parent will wrap his/her legs around the child's legs to immobilize. d. One phlebotomist will immobilize the arm by gently pushing up on the elbow while holding the arm straight. e. A second phlebotomist will draw the blood after verbally confirming the child is held securely.

Retired or Not Yet Effective

6. RELATED DOCUMENTS

- Venipuncture, Phlebotomy procedure
- Fingerstick, Phlebotomy procedure
- Heelstick, Phlebotomy procedure

7. REFERENCES

Patient Services BPT procedure, Pediatric Collection, QDPS03.STD, v2.1

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
000	6.16.2017	Header: Added WAH Section 5: Edited wording for clarity, incorporated minimization of blood volume SOP, added information about securing a child Section 6: Removed retired SOP Section 9: Added appendices Footer: Version # leading zero's dropped due to new EDCS in use as of 10/7/13.	SCodina	NCacciabeve
1	1/22/24	Header: changed WAH to WOMC Footer: changed SOP prefix to AHC Updated formatting to current standards	S Codina D Collier	NCacciabeve
2	8/27/24	Added recommendation that two people be present during neonatal/pediatric collections. Added suggestions for when a venipuncture is preferable to a heel stick.	SCodina	NCacciabeve

Retired or Not Yet Effective

9. ADDENDA AND APPENDICES

Appendix A: Maximum Blood Draw for Patients Under 14 Years
Appendix B: Cradle Hold
Appendix C: Chair Hold

Appendix A

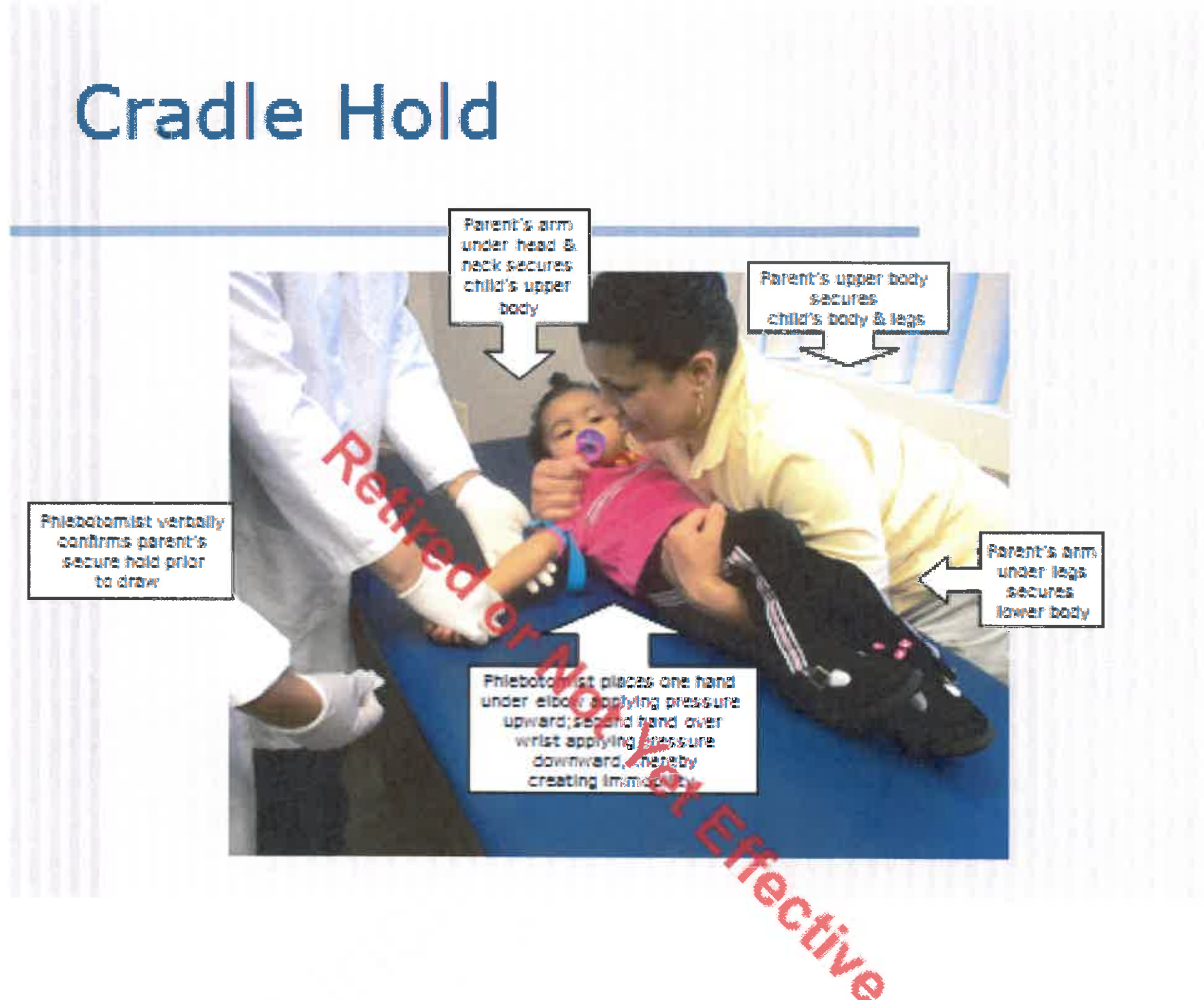
Maximum Blood Draw for Patients Under 14 Years

Weight (lbs)	Weight (Kg)	Maximum amount of blood to be drawn at one time	Maximum amount of blood to be drawn in one month
6-8	2.7-3.6	2.5 mL	23 mL
8-10	3.6-4.5	3.5 mL	30 mL
10-15	4.5-6.8	5 mL	40 mL
16-20	7.3-9.1	10 mL	60 mL
21-25	9.5-11.4	10 mL	70 mL
26-30	11.8-13.6	10 mL	80 mL
31-35	14.1-15.9	10 mL	100 mL
36-40	16.4-18.2	10 mL	130 mL
41-45	18.6-20.5	20 mL	140 mL
46-50	20.9-22.7	20 mL	160 mL
51-55	23.2-25.0	20 mL	180 mL
56-60	25.5-27.3	20 mL	200 mL
61-65	27.7-29.5	25 mL	220 mL
66-70	30.0-31.8	30 mL	240 mL
71-75	32.3-34.1	30 mL	250 mL
76-80	34.5-36.4	30 mL	270 mL
81-85	36.8-38.6	30 mL	290 mL
86-90	39.1-40.9	30 mL	310 mL
91-95	41.4-43.2	30 mL	330 mL
96-100	43.6-45.5	30 mL	350 mL

Retired or Not Yet Effective

Appendix B

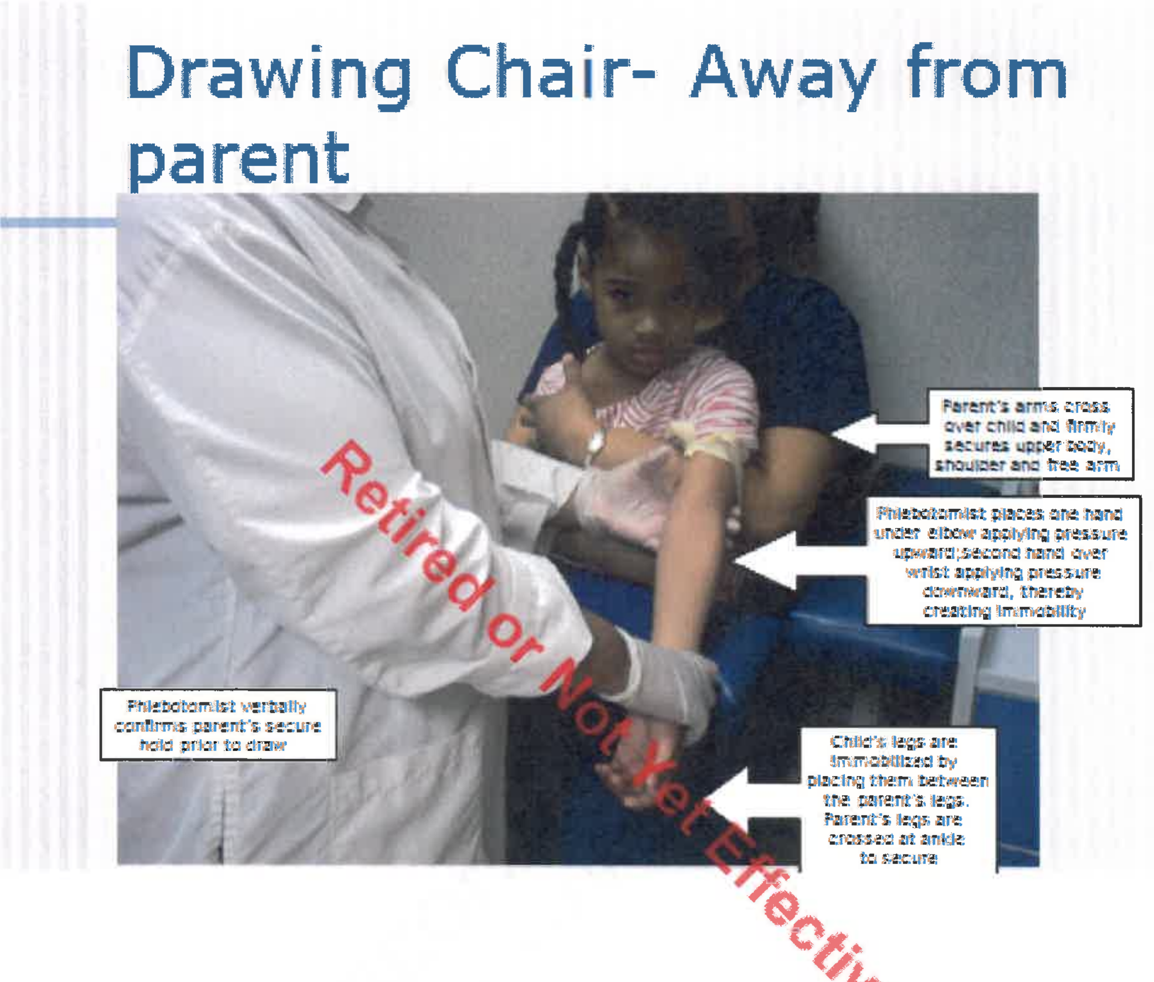
Cradle Hold



Retired or Not Yet Effective

Appendix C

Chair Hold



Retired or Not Yet Effective