Wake Forest Baptist Medical Center	**Outpatient Blood Collection Adverse Reactions** **OP-306-20**	**Department:**	**Outpatient Phlebotomy 324306**
		Effective Date:	**February, 2011**
		Revised Date:	**February, 2019**
		Contact:	**Rinard Howard**
Name & Title: Gregory Pomper, MD Medical Director		**Date:**	
Signature:			

1) General Procedure Statement:

a. **Purpose:** Adverse reactions from blood collection can occur and personnel collecting blood specimens must know what can occur and how best to manage the reactions. This policy addresses some adverse reactions and what should be done to address these reactions and not compromise a patient's health.

b. **Responsible Department/Scope:**
1.Procedure owner/Implementer: Outpatient Phlebotomy
2.Procedure prepared by: Rinard Howard, MHA PBT – ASCP
3.Who performs procedure: Outpatient Phlebotomy staff

2) Blood Bank/Glucose:

Explain what the procedure is

A. **Procedure:** Designation of personnel for first response to an adverse patient phlebotomy is area specific.

1. Inpatient Phlebotomy – On nursing units, nursing staff or physicians would be designated first response personnel.

2. Outpatient Phlebotomy – Within Doctors' offices and outpatient treatment centers, nursing staff or a code 44/rapid response would be designated first response personnel. 911 should be called if further assistance is needed.

3. Outreach Phlebotomy – Lab draw locations outside of a doctors' office. Nursing staff or physicians would be designated first response personnel from adjacent offices. 911 should be called if further assistance is needed.

Adverse Reaction

a. Hematoma: Blood can leak out of a vein and under the skin during venipuncture. This can cause discomfort and pain and can complicate further collections from that site. As soon as a hematoma is noted, remove the needle and tourniquet and apply pressure at the site for a minimum of 3 minutes. Check the site and if the hematoma has stopped forming, put on a bandage or gauze with tape and inform the patient of the hematoma. The bandage should remain in place for a minimum of a half hour.

b. Arterial Puncture: If the blood pulses into the collection system or fills collection tubes rapidly and is bright red, an artery has been punctured. Immediately discontinue blood draw and then apply pressure for a minimum of 5 minutes. Check the site before applying a bandage to ensure the artery has sealed and notify the patient that the site needs to have a bandage on it for an hour and not to use the arm for lifting anything over 5 pounds for the day. Let the patient know there may be more discomfort at the site than if the draw was a venipuncture draw.

c. Pain: Since nerves are very close to veins and arteries, there is some risk a nerve maybe pierced by a needle during blood collection. The patient will complain that he/she feels an electric shock going up his/her arm. Immediately remove the needle from the patient's arm and put pressure on the site. Ask the patient if the sensation has stopped. If so, try to redraw at another site if the patient is willing. Explain to the patient that a nerve was touched by the needle and that was what he/she felt. Ask them to let us know if they have any more numbness, weakness, or shocking sensations at the first site. See Nerve Damage.

d. Nerve Damage: If a nerve has been pierced or cut, the patient will feel pain or numbness or a shocking sensation as discussed in (d.) If the patient continues have these symptoms, get the patient to the ED (Emergency Department) and ask the staff there to examine the patient for nerve damage. The patient may need to be seen by his or her doctor to follow-up. Comfort the patient and let them know we cannot feel for nerves and this is a rare out-come of venipuncture.

e. Nausea: Patients may present with nausea unrelated to any blood collection procedure. Ask the patient how they are feeling and ask the patient if they would (if could) delay the blood collection until they feel better. If the collection must take place, make the patient as comfortable as possible. Instruct the patient to breathe deeply and slowly. Apply cold compresses to the patients' forehead. Be prepared to call the designated first response personnel, if needed.

f. Vomiting: Patients who may vomit should be given an emesis basin or some other acceptable container and have tissue ready. Give the patient a cup of water to rinse out his/her mouth. Notify the designated first response personnel.

g. Syncope (Fainting): If the patient passes out during the procedure, immediately release the tourniquet, remove the needle, activate the safety feature, and discard the device. Having the presence of mind to protect yourself from the contaminated sharp can prevent an adverse reaction from escalating into an accidental needle stick. Apply pressure to the site and summon first-aid personnel without leaving the patient's side. If possible, provide physical support to the patient and lower the patient's head and arms to promote blood flow to the brain. Avoid the use of ammonia inhalants, as they may trigger respiratory distress in asthmatic patients.

Limitations of the Procedure

Always work with doctors and nursing staff who are directly caring for our patients if there are any adverse reactions or risk of over phlebotomizing a patient. This guide does not encompass all possible reactions and use caution if there are any unusual outcomes or reactions during blood collection or after.

3) Related Procedures:

4) References:
1. Alan Greene MD FAAP, June 25, 2003, http://www.drgreene.org/body.cfm?id=21&action=detail&ref=1616
2. http://www.skillsforhealth.org.uk/viewcomp.php?id=1561, March 2007.
3. Diversity of Life. California: Wadsworth, 1989: 398.
4. "Blood." World Book Encyclopedia. Chicago: World Book, 1998: 407.
5. From The Harriet Lane Handbook, adapted from "Hematology of Infancy and Childhood" by D Nathan and FA Oski.
6. www.emedicinehealth.com/phlebitis/article_em.htm, March 2007.

5) Attachments: N/A

6) Revised/Reviewed Dates and Signatures:

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)

Reviewed/Revised Date: ______________________ By:___________________________________

(Medical Director/Designee)