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|  | **Blood Collection Adverse Reactions.**  **IPP#10** | **Dept:** | **Inpatient Phlebotomy 324305** |
| **Effective Date:** | **3/5/2017** |
| **Revised Date:** | **March 2019** |
| **Contact:** | **Laurie Watson** |
| **Name & Title: Greg Pomper, MD Medical Director** | | **Date:** |  |
| **Signature:** | | | |

1. **General Procedure Statement:**  To give guidelines to staff concerning the proper process for handling adverse patient reactions during blood collection
   1. **Purpose:** This procedure is to serve as a guide for trained personnel in the Inpatient Phlebotomy Department to perform the services described herein. These guidelines should be used in conjunction with proper training and only by qualified Phlebotomists.
   2. **Responsible Department/Scope:** 
      1. Procedure owner/Implementer: Inpatient Phlebotomy
      2. Procedure prepared by: Laurie Watson MT(ASCP)
      3. Who performs procedure: Inpatient Phlebotomy staff

1. **Procedure: Phlebotomy training for Adverse Reactions**
2. 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.
3. Designation of personnel for first response to an adverse patient phlebotomy is area specific.
4. Inpatient Phlebotomy – On nursing units, nursing staff or physicians would be designated first response personnel.
5. 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.
6. 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**

1. 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.
2. 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.
3. 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.
4. 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 to 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.
5. 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.
6. 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.
7. 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 needlestick. 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.

**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.

1. **Review/Revision/Implementation:**

All procedures must be reviewed at least every 2 years.

* All new procedures and procedures that have major revisions must be signed by the CLIA Laboratory Medical Director.

* All reviewed procedures and procedures with minor revisions can be signed by the designated section manager.

1. **Related Procedures:**
   1. **Phlebotomy Training IPP#8**
   2. **Blood Collection Procedures IPP#9**
   3. **Routine Inpatient Phlebotomy Collection with the mobile electronic collection Device IPP#11**
2. **References: GEN.40501**
3. **Attachments:** **Training checklist**
4. **Revised/Reviewed Dates and Signatures:**

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| Review Date: | Revision Date: | Reason: | Signature: |
|  | 3/6/2017 | Reformatted to Medical Center standard template | Laurie Watson, MT, ASCP |
|  | 3/5/2019 | Revised signature page | Laurie Watson, MT, ASCP |
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