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Adverse Reactions in Phlebotomy

Introduction

Some patients may exhibit an unfavorable reaction to having their blood drawn. This reference addresses the most common reactions to blood draw and how to handle those situations.

Scope

This reference is intended for anyone certified to draw blood from a patient by means of heelstick, fingerstick or venipuncture, or is within their scope of practice.

Complications and Conditions

The table below lists complications or conditions and how to handle each situation.

Complication or Condition	How to Handle the Situation
Adhesive Allergy	Place a clean folded gauze square over the site and wrap it with self adherent bandaging material.
Antiseptic Allergy	Use an alternative antiseptic.
Latex Allergy	Use non-latex products, such as gloves, tourniquets and bandages.
Excessive Bleeding	May be due to the patient taking aspirin or anticoagulants. Do not dismiss the patient until the bleeding has stopped.
Fainting (Scope)	• If the patient informs you that they are prone to fainting, have them lie down for the blood draw. • Patients who feel faint before or after blood draw should be asked to lie down, if possible. • Watch for signs of fainting like paleness, perspiration and rapid breathing. • Never turn your back on a patient as fainting can come on suddenly. • If the patient loses consciousness or a member needs immediate medical attention, follow the local procedures.

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Adverse Reactions in Phlebotomy, Continued

Complications and Conditions, continued

Complication or Condition	How to Handle the Situation

Fainting (Scope), continued	• If a patient starts to faint:
	  • Discontinue the draw. Release and remove the tourniquet, activate the safety device and discard the needle as quickly as possible.
	  • Apply pressure to the site while having the patient lower the head and breathe deeply.
	  • Talk to the patient.
	  • Apply a cold compress or wet washcloth to the forehead and back of the neck.
	  • Have someone stay with the patient until recovery is complete.
	  • Call first aid personnel if the patient does not respond.
	  • Document the incident.
	• Never use smelling salts to revive a patient.
	• Refer to local policies for additional details related to your facility.

Nausea and Vomiting	• If the patient feels nauseous or shows signs such as becoming pale or sweat on the forehead, do not attempt the blood draw. • If the blood draw is in progress, discontinue the draw. Release and remove the tourniquet, activate the safety device and discard the needle as quickly as possible. • Reassure the patient and provide an emesis basin or trashcan. • Have the patient breathe slowly and deeply. • Apply a cold compress or wet washcloth to the forehead and back of neck. • If the patient vomits, provide tissues or washcloth to wipe the face. • Notify the appropriate personnel about the incident.

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Adverse Reactions in Phlebotomy, Continued

Complications and Conditions, continued

Complication or Condition	How to Handle the Situation
Pain	• A small amount of pain is normal when drawing blood. • Warning the patient prior to the stick can help avoid a startle reflex. • Stinging can be avoided if the alcohol has air dried prior to the stick. • Do not probe with the needle, as that can cause severe pain as well as injury to arteries, nerves and tissue. • Extreme pain may be caused by accidentally hitting a nerve and the needle should be removed immediately. • Refer patient as appropriate.
Petechiae	• Petechiae are tiny, nonraised red spots that appear on the patient's skin when a tourniquet is applied. • The spots are minute drops of blood that escape the capillaries and come to the surface of the skin below the tourniquet. • They are not an indication that the phlebotomist has used an incorrect procedure but they are an indication that the venipuncture site may bleed excessively. • Do not dismiss the patient until the bleeding has stopped.
Seizures/convulsion	• Discontinue the draw. Release and remove the tourniquet, activate the safety device and discard the needle as quickly as possible. • Hold pressure over the venipuncture site without restricting the patient's movement. • Do not put anything into the patient's mouth. • Try to protect the patient from self-injury. • Notify the appropriate personnel.

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Adverse Reactions in Phlebotomy, Continued

Complications and Conditions, continued

Complication or Condition	How to Handle the Situation

Hematoma Formation	• Hematoma formation is the most common complication of venipuncture caused by blood leaking into the tissues during or following venipuncture, and is identified by rapid swelling at or near the venipuncture site.
	• Causes:
	  • Excessive or blind probing to locate a vein
	  • Inadvertent arterial puncture
	  • The vein is fragile or too small for the needle size
	  • The needle penetrates all the way through the vein
	  • The needle is only partly inserted into the vein
	  • The needle is removed while the tourniquet is still on
	  • Pressure is not adequately applied following venipuncture
	• If a hematoma forms during the collection, immediately stop the collection and apply pressure to the site for a least 5 minutes. Refer to Bruise Prevention Procedure.

Inadvertent Arterial Puncture	• Inadvertent arterial puncture is most commonly associated with deep probing in the area of the basilic vein (close to the brachial artery).
	• Signs:
	  • Rapid hematoma formation
	  • Blood filling the tube quickly
	  • Spurts or pulses into the container
	  • Bright red color
	• Discontinue the draw. Release and remove the tourniquet, activate the safety device and discard the needle as quickly as possible.
	• Apply forceful pressure to the site for at least 5 minutes.

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Adverse Reactions in Phlebotomy, Continued

Complications and Conditions, continued

Complication or Condition	How to Handle the Situation
Infection	Rare occurrence of infection can be minimized by the use of proper aseptic technique. • Do not open adhesive tape or bandages ahead of time, or temporarily tape them to a contaminated surface. • Do not preload needles onto tube holders to have a supply for many draws. • Before or during needle insertion, do not touch the site with your finger, gauze, or any other nonsterile object. • Do no re-palpate the site after cleansing. • Minimize the time between removing the needle cap and performing the venipuncture. • Remind the patient to keep the bandage on for 15 minutes after specimen collection.

Nerve Injury	• Nerve injury can be caused by:
	  • Poor site or improper vein selection
	  • Inserting the needle too deeply
	  • Movement by the patient as the needle is inserted
	  • Excessive or lateral redirection of the needle
	  • Blind probing
	• If initial needle insertion does not result in successful vein entry, and slight forward or backward redirection of the needle or use of a new tube does not result in blood flow, the needle should be removed and venipuncture attempted at an alternate site.

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Adverse Reactions in Phlebotomy, Continued

Non-Controlled Documents

The following non-controlled documents support this reference.

- McCall and Tankersley, Phlebotomy Essentials, 5th Edition, Lippincott, Williams & Wilkins, Chapter 9.
- CLSI, Procedures for the Collection of Diagnostic Blood Specimens by Venipuncture; Approved Standard – Sixth Edition, H3-A6, Vol. 27 No.26

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Signature Manifest

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Initial Approval

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Adverse Reactions in Phlebotomy

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