DEFINITIONS

**Most Responsible Health Practitioner (MRHP):** means the Health Practitioner who has the responsibility and accountability for the specific treatment/procedure(s) provided and prescribed to a patient and who is authorized by Saskatoon Health Region (SHR) to perform the duties required to fulfill the delivery of such a treatment/procedure(s) within the scope of their practice.

**One unit of blood:** One unit of blood is approximately equal to 500 grams or 470 mls.

**Therapeutic phlebotomy:** The removal of a specific amount (volume) of blood from a patient for treatment of a specific condition or disease. (INS P&P for Infusion Nursing. 2016).

1. **PURPOSE**

1.1 To safely remove a specific amount of blood from a patient with a clinical indication as ordered. The three most common reasons for therapeutic phlebotomy are:

- Polycythemia (rubra) vera – to decrease red cell mass
- Porphyria – to reduce clinical symptoms in patients with metabolic disorders of heme synthesis which may be associated with hepatosplenomegaly, photosensitivity, hyperpigmentation and distinct red colour in the urine
- Hereditary hemachromatosis – to reduce iron overload in the setting of a genetic iron loading disorder.

2. **ROLES**

**Registered Nurses (RNs):** RNs identified by their manager in targeted practice settings will be certified in the RN Specialty Practice: RN Procedure: Therapeutic Phlebotomy.
3. POLICY

3.1 The RN shall perform therapeutic phlebotomy under MRHP order. The order shall include amount and frequency of blood withdrawal.

3.2 The RN shall not perform therapeutic phlebotomy if the client is clinically unstable. The MRHP shall be notified.

3.3 Sterile technique shall be followed.

4. PROCEDURE

4.1 Review the MRHP order.

4.1.1 The order must include:
• Amount of blood to be withdrawn (max of 500 grams)
• Frequency of procedure

4.1.2 It may also include:
• any pre-or post blood work to be drawn at time of phlebotomy.
• pre-phlebotomy hematocrit and hemoglobin levels.
• post phlebotomy target for hematocrit, hemoglobin and ferritin levels.
• fluid replacement, including type of fluid, rate, route, and amount.

4.2 Gather supplies:
• Chlorhexidine/alcohol swabs
• Tourniquet
• Phlebotomy bag with citrate SKU 50560
• Scale that will weigh to 500 grams. May obtain from:
  o RUH Oncology Day Unit (ODU)
  o SCH Clinical treatment Center
  o SPH Ambulatory Care
• 16 or 18 gauge cathlon (if not using phlebotomy needle)
• Injection adapter 7/8 male SKU 41192
• Personal protective equipment (PPE) (ie clean gloves)

4.3 Confirm patient’s identity with 2 identifiers.

4.4 Assess patient for allergies, current medications / pre-admission meds, and medical diagnosis. (allergy Intollerance record)

4.5 Obtain and document baseline vital signs.

Note: if systolic blood pressure is less than 90 mmHg and or pulse greater than 130 beats per minute, contact physician before proceeding with phlebotomy.

4.6 Provide patient education including:
• need for hydration before and after procedure
• potential side effects such as hematoma, syncope, and nausea/vomiting.

4.7 Place phlebotomy bag on scale and zero scale.

4.8 Perform hand hygiene and don PPE.

4.9 Assess upper extremities for an appropriate vein. The antecubital fossa medial vein is preferred, but large forearm veins may be used. Select a vein that is straight with no visible branching.

4.10 Cleanse site with chlorhexidine/alcohol swab using back and forth motion in 2 directions and allow to dry.

4.11 Apply tourniquet 5 cm above site. Tourniquet should not be left in place for greater than one minute.

4.12 Initiate venipuncture with phlebotomy bag needle or cathlon. If cathlon is used attach injection adapter. Insert phlebotomy needle into adapter after venipuncture.

4.13 Remove tourniquet. Cover site with sterile gauze and tape in place. If site is in antecubital fossa, instruct patient to keep arm straight.

4.14 Observe patient during collection. **Patient should not be left unattended.**

4.15 If the patient experiences adverse effect:
  • stop the procedure
  • lay patient flat or in Trendelenburg
  • apply oxygen at 3l/NP
  • notify MRHP as soon as possible

4.16 Once required amount of blood has been removed:
  • clamp tubing
  • remove needle
  • apply pressure to site until bleeding has stopped
  • dress with gauze and tape

4.17 Dispose of blood and sharps in appropriate biohazard container

4.18 Remove PPE and perform hand hygiene.

4.19 Check vital signs at 15 minutes post procedure and until patient is stable. Give 1-2 cups of oral fluids or IV fluid if ordered by MRHP.

4.20 Document:
  • vital signs post procedure
  • venipuncture site and amount of blood removed
  • patient’s response to procedure
4.21 Assist patient to ambulate when stable and discharge.

5 REFERENCES


