POLICY

1. Leech therapy requires a physician’s order.

2. The prescribing physician must get authorization from Health Canada to use leeches as a Special Access medication (http://hc-sc.gc.ca/dhp-mps/acces/drugs-drogues/index-eng.php). Pharmacy staff can assist with the authorization process.

PROCEDURE

1. Assessment, Education and Consent
   
   1.1. Provide education and emotional support to the patient and family to lessen any anxiety they may experience.

   1.1.1. Physician obtains consent for leech therapy.

   1.2. Assess for the following contraindications:

   1.2.1. Patients with HIV/AIDS or who are immunocompromised or taking immunosuppressive medications due to the risks of bacterial sepsis.

   1.2.2. Patients with bleeding disorders or who have refused blood transfusions.

   1.3. Monitor the patient for signs and symptoms of allergic reaction, contact dermatitis, signs of infection and abnormal lab values (Hgb and coagulation levels) and report to physician.

   1.4. Discuss with the physician the need for prophylactic antibiotics.
2. **Obtaining Leeches:**
   2.1. Leeches are housed in the Pharmacy Department.
   2.2. The Pharmacy staff dispenses leeches during open hours and can be called in after hours via the Administrative Coordinator if necessary.
   2.3. Pharmacy dispenses leeches in plastic containers that can be used for transport purposes.
      2.3.1. Each container houses 10 leeches. Request more leeches as required.
   2.4. Do not return leeches to Pharmacy.
   2.5. Nursing staff, pharmacy staff or porters transport leeches in jars with secured lids. Once delivered, the nurse replaces the plastic top with gauze secured with elastic.

3. **Maintenance of Leeches:**
   3.1. Obtain leech maintenance fluid from Pharmacy during normal working hours.
   3.2. Change the leech maintenance fluid every 2 days.
   3.3. Keep leeches cool (5-7 degrees Celsius) in the medication fridge.
   3.4. Keep the leech container covered to contain them, (leeches can crawl out of the container). Use gauze secured with elastic so leeches don’t suffocate.

4. **Application of Leeches:**
   4.1. Apply as ordered by physician, (order to include the number of leeches and duration of application).
   4.2. Remove required number of leeches from the container using either gloved fingers or blunt forceps. Replace the container cover to prevent other leeches from crawling out. Transport leeches to the bedside in a specimen container with gauze cover.
   4.3. Don examination gloves.
   4.4. Cleanse the skin area where the leech is to attach with sterile water to remove traces of operative prep fluid or saline.
   4.5. Cut a hole in a sterile 2" x 2" to form a barrier to prevent the leech from wandering; wet the gauze so it will stay in contact with the area.
   4.6. **Option # 1** - Steer the leech’s head (smallest part) to the area where it is to attach. If the leech is reluctant to bite, make a small needle prick, (using a safety needle attached to a syringe), on the skin to produce a tiny droplet of blood to entice the leech. If it still won’t attach, try another leech.
      **Note:** Persistent resistance to feeding is often indicative of poor arterial supply.
   4.7. **Option # 2** - Remove the plunger from a 5cc plastic syringe and place the leech in the barrel of the syringe. Invert the barrel, placing the open end on the wound site, where the leech is to attach. Once feeding commences remove the syringe.
Note: Do not pull a leech from its host as the teeth may become detached or it may regurgitate its stomach contents back into the patient’s wound. If it is essential to remove a leech early, then it may be encouraged to detach with gentle stroking of the head using an alcohol swab or saline soaked gauze.

4.8. Once the leech is attached, leave in place as ordered or until fully distended. Never leave a leech unattended to ensure that the leech does not move or wander.

Note: The leech usually remains attached for 20-45 minutes; once distended it will detach itself from the bite site.

4.9. Record leech therapy on the appropriate microvascular flow sheet (Refer to Related Documents).

4.10. Monitor site for continuous oozing of blood. Notify physician if it is excessive.

5. Disposal of Leeches:

5.1. Pick up distended detached leech with forceps or gloved hand and place it in a container of 70% alcohol for 5 minutes. Never reuse a leech.

5.2. Dispose of container and contents as per Biohazardous Waste Management CH 90-017.

5.3. Dispose of any unused leeches at the end of treatment in the same manner.

REFERENCES:


RELATED DOCUMENTS

Policies
CC 10-035 Microvascular Flow Sheet
CH 90-017 Biohazardous Waste Management

Forms
CD0266 Microvascular Flow Sheet (1900 - 0700 hours)

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CD0264  Microvascular Flow Sheet (0700 - 1900 hours)
CD2264MR  ENT Microvascular Flowsheet

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