

## Leech Therapy

### Site Applicability

VGH

**This guideline is due for review, BUT STILL BEING USED WITHIN THIS ORGANIZATION. Please contact the unit of origin to DISCUSS ANY CONCERNS REGARDING CURRENCY of this information.**

### Delegated Task

A physician's order is required and must indicate frequency and position placement.

### Background Information

- Leeches are used to reduce venous congestion.
  - Necrosis from venous congestion occurs more frequently than from arterial insufficiency.
- Leeches are quick, elastic, and adhere to surfaces. Usual feeding time is 30-60 minutes. The leech will detach spontaneously when engorged. Leeches are for single use. Each leech is disposed of after it detaches.....
  - To prevent transmission of blood borne disease.
- Leeches are stored in a cool area at 15oC and kept out of direct sunlight. (do not store in fridge). Leech therapy can significantly decrease Hemoglobin and HCT levels.
  - check patient's hgb daily as per doctor's orders.

### Equipment / Materials Required

- Leeches in a container of HIRUDOTM salt solution, and vented secure lid with a tightly woven cloth.
- Order only enough leeches for what is needed as once leeches leave splint room they are considered contaminated and they will not be taken back.

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## PROCEDURE / RECOMMENDATIONS / ASSESSMENT:

### A. APPLICATION OF LEECH:

- Apply unsterile latex gloves.
- Remove one leech gently but firmly from the container of salt solution with a plastic tissue forcep or tongue depressor.
  - To prevent leech from adhering to gloved hand.
  - Do not squeeze leech too tightly.
  - Rough handling of a leech may cause it not to feed.
  - Leeches do not like metal instruments.
- Place in the sterile midstream container for transport to the patient's bedside.
- Replace tightly woven gauze air-hold lid on the main salt solution jar of leeches and replace in a cool place.
  - Leeches will escape quickly through holes 1/4 cm or more. Escape route is guarded by the gauze.
- Cleanse patient's skin thoroughly with sterile water.
  - To remove all substances, strong odour or taste such as antiseptics and vaseline.
- Cut a 1 cm hold in the centre of a sterile water moistened gauze and apply the gauze to the selected site.
  - **Gauze will prevent the leech from wandering and possibly attaching elsewhere. This may not be possible for some areas, e.g. small finger area. Consider alternatives that will prevent leech from wandering, i.e. appropriate size savaday tray or medicine cup with bottoms cut out.**
- Remove leech from the sterile midstream container with the plastic tissue forcep and apply to the 1 cm hole of the gauze and steer the leech's head (narrow end) to the selected site.
- If the leech does not bite, apply a small drop of 5% dextrose/water to the area.
  - If this fails, the physician will make a needle prick or small incision on the skin to produce a blood droplet.
- Assess the leech's feeding ability and if necessary try another leech.
  - Persistent resistance to feeding may indicate a poor arterial supply. Dispose of non-feeding leech in midstream container with sufficient 70% alcohol to cover entire leech.
- Once leech is successfully feeding, observe q5-10 minutes to ensure the leech remains at the placement site.
  - The leech is allowed to feed undisturbed.
- Instruct patient to call nursing staff if leech falls off, moves away from the site and/or relocates.
- Assess leech in 30 to 60 minutes at which time leech is usually satisfied.

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- Leech will simply drop off the skin when satisfied and will not attempt to bite again. Premature removal is not encouraged as the teeth may detach. Using tissue forceps, dispose of leech into the midstream container with sufficient 70% alcohol to cover entire leech. Secure lid tightly.
- Place midstream container containing the leech into the yellow sharps bucket in the service room.

## B. POST BITE CARE OF WOUNDS

- Using a sterile applicator moistened with normal saline, gently remove clots from bite sites at regular intervals.
  - Each bite site must be encouraged to bleed.
- Observe site for local infection.

## References

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## UNIT(s) OF ORIGIN: Burn Unit, June 1995

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