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WRIGHT LINEAR PUMP

RECOMMENDATIONS FOR VENOUS ULCER TREATMENT

*This recommendation is only one way in which the **Wright Pump** can be used in the management of venous ulcers. Variations of pump usage will depend on the patient's specific condition.*

I. PURPOSE:

1. To remove edema from areas surrounding leg ulcers thereby promoting healing.
2. To relieve pain associated with leg ulcers.
3. To reduce the amount of edema in leg ulcers before grafting to facilitate the appearance of good granulation tissue.

II. PRE-TREATMENT CRITERIA:

1. Pump Treatment must be ordered by a physician.
2. Patient history and a physical by their primary physician will precede the use of the Wright Linear Pump.
3. The physician should be aware of the contraindications. Examination should rule out all contraindications before beginning pump therapy.

III. CONTRAINDICATIONS FOR PUMP THERAPY:

1. Cardiovascular disease including congestive heart failure.
2. Active infection in edematous extremity. Begin therapy after infection has cleared.

3. Ulcers needing debridement should be debrided. Begin therapy after debriding.
4. Acute thrombophlebitis or emboli.
5. Active malignancy in edematous extremity. However, this is sometimes considered on an individual basis.
6. Neuropathic disease.
7. Arterial disease.

IV. READY TO BEGIN TREATMENT:

1. Review the Wright Pump Users Manual and proceed according to instructions.
2. **Pressure settings**
 - a. Distal cuff - 40 mm. Hg
 - b. Mid cuff - 30 mm. Hg
 - c. Proximal - 20 mm Hg
3. **Set Time Sequence**

120 second cycle

90 seconds - Cell A

70 seconds - Cell B

50 seconds - Cell C

Set "on" time to 90 seconds

Set "off" time to 30 seconds

Set delay cell A timer to 20 seconds

Set delay cell B timer to 20 seconds

(This is a 20 second delay between A & B cells; and a 20 second delay between B & C cells.)

For extremely large lower extremities or (bilateral cases) the overall cycle will be increased to 150 seconds.

150 second cycle

120 seconds - Cell A

90 seconds - Cell B

60 seconds - Cell C

Set "on" time to 120 seconds

Set "off" time to 30 seconds

Set Cell A to 30 seconds

Set Cell B to 30 seconds

(This is a 30 second delay between A & B cells; and a 30 second delay between B & C cells.)

4. Run two cycles to evaluate connections, air leaks, etc. Place pump on bedside table or cart with pad under pump to reduce vibration.
5. Review procedure and the purpose of the procedure to the patient.
6. Remove compression hose and dressings if present.
7. Record pulse and blood pressure before beginning treatment.
8. Measure limb and record measurements *before* pumping.
9. Apply gauze dressing if needed and place stockinette over dressing.
10. Place limb into the zippered appliance. Zip appliance closed. Attach waist straps if needed.
11. Turn power switch to ON. Stay with patient for first several cycles. As pump cycles, again observe hoses, clamps and connections for leaks. Observe the pressure dials.

12. Pump for 4 hours the first day and each day afterwards until no appreciable difference in the limb circumference is noted before and after pumping sessions for 2 consecutive mornings.
13. If the patient complains of pain, reduce pressure in each cell, keeping a 5 to 10 mm. Hg decrement between cells.
14. Apply a wrap such as Coban over a gauze dressing if needed when patient is off the pump. If there is no open area, compression hosiery with pressures of 30 - 40 mm. Hg should be worn to contain the edema.
15. Clean appliance with mild soap on a sponge daily. Sponge rinse with clear water. Dry thoroughly with a towel. Unzip to air dry when not in use.
16. **Precautions:** Do not use if large amounts of drainage, a foul odor, or cellulitis are present. Notify physician if pulse rate increases more than 20 points, respirations increase more than 10, or the patient has shortness of breath. Diastolic blood pressure should not be over 90.

