

PROCEDURE

ORIGINAL DATE: 12/93

Reviewed Date: 09/02

SUBJECT: ULTRASOUND MACHINES, USE OF

PURPOSE: To utilize the beneficial physiologic effects of extremely high frequency soundwave vibrations. Benefits include enhanced chemical reactions, increased fluid and nutrient transfers, mobilization of adhesions and scar tissue and selective heat absorption.

CONSIDERATIONS

Acoustic energy is transmitted from a medical ultrasonic generator to the skin of a specific body area via a liquid or semi-solid conductor agent.

Ultrasound therapy will be delivered to patients when specifically ordered by physician.

A. Documentation on care plan will include:

1. wattage...(0.5 - 1.5 w/cm²)
2. duration...(1-8 minutes)
3. anatomical area to receive treatment
4. number of treatment...(5-18)

B. Indications for ultrasound treatments include but are not restricted to:

1. bursitis
2. fibrositis
3. scar tissue problems
4. dupuytren's contracture
5. osteoarthritis
6. scleroderma
7. spasm in neuromuscular/musculoskeletal conditions

C. Contraindications for ultrasound treatment include:

1. recent fracture site
2. children's and adolescent's growing bones
3. malignancies
4. over the eyes
5. near/over the heart
6. on the head
7. near/or reproductive organs
8. directly over the spinal column
9. over low back in cases of pregnancies
10. where skin suffers from sensory impairment
11. in area of visceral plexus and large autonomous ganglion

12. over metal implants
13. pacemakers inserted prior to 1989
14. over lesions or open area

Procedure

1. Transport equipment to patient's home:
 - a. ultrasound apparatus
 - b. electrical ground adapter, if necessary
 - c. conductor gel
 - d. alcohol
 - e. towel (obtained at home of patient)
2. Locate grounded outlet in home or use grounded adapter to plug in unit. Position the machine where it is easily accessible and legible.
3. Check condition of equipment and set ultrasound output control to "0"
4. Recheck specific ultrasound prescription for wattage, duration, type (pulse or continuous) and area to be treated. Review Rx protocols if needed, in order to determine intensity and duration for optimum effectiveness.
5. Verify client has no metal implants; remove all metal from area to be treated.
6. Drape and position the patient appropriately and comfortably with support to the area treated
7. Instruct patient in what to expect from the treatment and the possible sensory effects.
8. Inspect area to be treated for any lesions/open areas and wash and dry the skin carefully.
9. Turn on the timer for a warm up period.
10. Cleanse sound head prior to treatment by wiping thoroughly with alcohol.
11. Apply medium to the area to be treated and begin stroking the area slowly with firm, even pressure. If you are applying under water, keep the sound head ½" from the surface of the area but always under the water.
12. Increase the power to the proper intensity and reset the time while the sound head is moving over the surface. Keep sound head moving at all times. Do not tilt the sound head during application.
13. Evaluate client comfort during treatment.
14. When treatment completed, turn all controls to "Off" or to "0" and then remove sound head.
15. Remove medium with alcohol or water from the area and the sound head.
16. Remove sound head from unit and repack carefully in carrier bag with sound head protected by foam pad.
17. Disconnect power cord from machine before replacing in carrying use.
18. Check supply of conductor medium and refill container upon returning ultrasound unit if necessary.