

LAB ACTIVITY: LOW LEVEL LASER THERAPY

Student name Student number.....
 Course name.....course code.....

| LASER – PRACTICAL PROCEDURE | Evaluation | | |
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| A-Patients preparation | 0 | 1 | 2 |
| 1. Case sheet reading <ul style="list-style-type: none"> a. Name – Identification of the patient b. Age – Modulation of treatment (Adult/Old) c. Sex – Provide privacy (Male/Female) d. Occupation – Correlate the symptoms/signs of the patient for ergonomic advice if applicable e. Chief Complaints – Generation of problem list & Setting goals (Short & long term) for the treatment f. Side – Right or Left side of the involvement. g. Site – Specific area/region to be treated (Anterior/Posterior/Medial/Lateral) h. Duration of the condition – Acute/Sub-acute/Chronic (Treatment planning & Setting) i. Diagnosis – Condition of the patient j. <u>Note: For all acute conditions – thermotherapy is contraindicated (Use pulse mode if available)</u> k. Verify the absence of contraindications (General & local) | | | |
| 2. Positioning of the patient <ul style="list-style-type: none"> a. Place patient in a well-supported, comfortable & relaxed position. b. Use adequate pillows, towels & bed sheets. c. Expose the body part to be treated, have patient remove all jewelry from the area. d. Drape the untreated part of the patient to preserve modesty, protect clothing, but allow easy accesses to the body part. e. Provide goggles to the patient. | | | |
| 3. Preparation of the part to be treated <ul style="list-style-type: none"> a. Verify the absence of contraindications (General & local) b. Check for thermal skin sensation by using test tubes filled with hot & cold water c. If there is any oil/cream/gel/dust – clean the area with water & soap. d. Make sure the treatment part is dry. | | | |
| 4. Instructions & Warning to the patient <ul style="list-style-type: none"> a. Not to remove the goggles b. NOT TO move the treatment part, c. NOT TO touch the power cord & the generator, d. NOT TO sleep during the treatment. | | | |

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| B-Equipment preparation | 0 | 1 | 2 |
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| 5. Collection of equipment & Other essential Materials <ul style="list-style-type: none"> a. LASER unit, power cord of the generator, b. Adequate pillows, towels, bed sheets & Goggles/cotton pad. c. All the collected materials should be placed near to the treatment couch in a table. | | | |
| <ul style="list-style-type: none"> a. Check for mains output by using the tester, look for any frayed part of power cords, integrity of cables & electrodes. b. Verify that all the knobs/controls in the Laser unit are at zero. c. Connect the machine power cord to the mains (220/110 Volts) & switch on the mains. d. Ask the patient to wear the goggles for the protection of eye. e. Switch on the machine by turning on the power knob/switch of the Laser machine. (Look for the display of light in the knob/switch if provided) f. Set the timer for 1-2 minutes. g. Gradually point the probe to the floor & look for the red light or if using the infrared laser look for indicator (LED) over the probe. h. Finally, switch off the power of the Laser. | | | |
| C-treatment procedures and application | | | |
| 6. Explanation regarding the need for the treatment to the patient <ul style="list-style-type: none"> a. Explain the therapeutic benefits of LASER | | | |
| 7. Technique/Methods of application of Treatment The technique of laser application ideally is done with gentle contact with the skin surface and should be perpendicular to the target surface. <ul style="list-style-type: none"> a. Spot techniques b. Gridding techniques c. Trigger or acupuncture points are also treated for painful conditions d. Scanning technique (Scanning technique. When skin contact cannot be maintained) DOSAGE – <ul style="list-style-type: none"> a) Laser type: b) wavelength c) power of d) spot size of 1.0mm e) Energy dosage If patient reports any discomfort during the treatment at the treatment site, or nausea & so on discontinue the treatment. Once the treatment is finished switch off the unit. | | | |
| 8. Termination of the treatment & Checking the patients for any adverse reactions <ul style="list-style-type: none"> a. As the treatment time is over, switch OFF the Laser & move away from the patient. b. Remove the materials used for draping form the patient. c. Inspect the treatment area for any adverse reactions. d. Ask the patient to maintain the same position for minutes (In order to avoid postural hypotension – if you are choosing supine/prone position) & then to sit/stand. | | | |

9. Documentation / Recording

- a. Record the side, site, duration & condition of the patient.
- b. Laser type used.
- c. Laser method used.
- d. Treatment time.
- e. Any adverse reactions if any.
- f. Ask the patient response/feeling towards the treatment area.

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Case Study #1

A 58-year-old female patient presents with knee pain, stiffness and swelling associated with Osteoarthritis. Patient is starting to have difficulty performing daily tasks; specifically walking, getting in and out of her car, and standing for longer periods of time (i.e. showering, washing dishes, etc.)

Target tissue will be treated:-----

Stage of conditions: -----

Goals of treatment: -----

Laser treatment parameters: -----

Position of patients during treatment: -----

Justification (rational): -----

Please: download the attached paper, read it carefully and use it to fine answer for case study

Case study 2

A 38years woman with mild to moderate carpal tunnel syndrome 3 months as approved clinically and electroneuromyographic. She had normal laboratory tests, and wrist radiographs without osteoarticular lesions, no tumor or infectious diseases; no photosensitivity reaction. Her physician advice to perform physical therapy. Based on your study answer the following:

Target tissue will be treated:-----

Stage of conditions: -----

Goals of treatment: -----

Laser treatment parameters: -----

Position of patients during treatment: -----

Justification (rational): -----

