STANDARDIZED PROCEDURE

Laser Therapy

These procedures are intended to describe procedures performed by the Nurse Practitioner at UC San Diego Health.

I. Definition

Laser are composed of an energy source, resonant chamber, and active medium that determines the wavelength produced and gives the laser its name. For medical purposes described below, the active medium can be a gas (Fractional Co2 laser) or liquid dye solution (Pulsed dye, IPL). The two main types of lasers used for treatment of burn patients are categorized as Vascular Laser and Ablative lasers.

Vascular Laser: useful for treating burn injuries, target's the oxyhemoglobin chromophore. These included pulse dye lasers (PDL) and intense pulsed light (IPL) systems.

Ablative laser: Fractional CO2 lasers target water in tissues as their primary chromophore. The term "ablative" refers to the effect the laser beam, which in essence vaporizes tissue.

II. Background information

A. Setting: UCSD health ambulatory clinics or UCSD Health operating rooms. CO2, IPL and PDL laser therapy is offered in both settings.
B. Supervision: Direct supervision will not be required upon completion of the FPPE for this privilege.
C. Indications
    a. Vascular Laser- Delayed wound healing, post burn pruritus, hypervascularity and erythema, hypertrophic scarring
    b. Ablative Laser- treatment of unstable burn scar/slow to heal wounds, modulation of existing scars and contractures, including hypertrophic scars.
D. Precautions/Contraindications
    a. Previous laser treatment in the last 48 hours
    b. Intolerance to laser therapy
    c. Pregnancy
    d. Sunburn
    e. Recent tanning
    f. Active herpes simplex infection
    g. Open wounds in treatment area
    h. Use of photo sensitive medications

*Caution should be used in patients with Fitzpatrick score IV or more due to risk of damage to the skin. Test patches can be done prior to completing full treatment.

III. Procedure

A. Informed consent will be obtained by the APP prior to the procedure discussing the risks and benefits of the procedure, potential complications and alternative treatments. Informed consent forms are valid for up to 2 years and specify the expected number of treatments over that time frame.

B. Process
    a. Patients will be referred for laser therapy after evaluation in clinic. Burn patients may be referred for laser therapy due to hypertrophic scarring, scar contractures, hyperpigmentation, ongoing pain, or itching in scars.
    b. APP will obtain a baseline patient history and update History and Physical in EMR.
    c. Patients with larger body surface treatment areas, complex scarring, and pediatric patients will be scheduled in Main OR under general anesthesia.
    d. Smaller scars may be treated in outpatient procedural space with topical anesthetics applied prior to the procedure.
    e. Selection of the type of laser to use will be based on patient assessment and Fitzpatrick Skin Type (see appendix). Multiple lasers may be used in one procedure.
    f. Ablative lasers will be used if patient has thick burn scars, scar contractures or surface irregularities.
    g. Pulse Dye Laser therapy is indicated for hyperpigmentation and pruritus.
    h. Intense Pulsed Light therapy is indicated for to improve pigmentation, texture, pliability, pain and pruritus.
    i. Treatment areas will be cleaned with antiseptic solution (ie Vashe) prior to procedure to maintain asepsis. No draping is necessary.
    j. Pre-procedure vital signs will be taken and charted in the EMR.
    k. Tolerance of procedure will be assessed by the APP performing the procedure.
    l. Patient education post procedure will include complications that may occur, post-operative wound care, and signs and symptoms to seek medical care.
    m. Potential Complications, though rare and usually mild, include:
        i. Pain and discomfort
        ii. Redness and swelling
        iii. Blistering and sloughing of treatment areas
        iv. Dryness and crusting
        v. Itching

IV. Documentation
A. Procedure note documented in EPIC following completion of the procedure.

Appendix

Fitzpatrick Skin Type Scoring

Fitzpatrick skin phototypes

Skin type	Reaction to sun exposure*
I	Always burns, never tans
II	Always burns, minimal tan
III	Burns minimally, gradually tans
IV	Burns minimally, tans well
V	Very rarely burns, tans profusely
VI	Never burns, tans deeply

NOTE: Slight variations on the definitions of the phototypes appear in the literature. Progression from type I to type VI often correlates with increasing baseline skin pigmentation.

* After the first 1 hour of sun exposure on previously unexposed skin on the first day of spring.

Graphic 60541 Version 7.0

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V. Responsibility

Sr. Director of Advanced Practice Providers office number (858)-249-2677

VI. History of Standardized Procedure:

Approved by

IPC: 1/28/2026

Credentials: 2/04/2026

MSEC: 2/19/2026

EGB: 2/24/2026