Advanced Medical Laser Safety Officer (MLSO) Workshop

www.LaserTraining.org

V2601

CLASS LIMITED TO 6 PEOPLE.

Course Prerequisites: You must meet these to qualify for registration.
1) Accredited certificate of formal training as a medical laser safety officer,
and/or a nationally recognized CERTIFICATION as a medical laser safety officer. If you are attending our 2 day LSO course immediately preceding this advanced day, that will meet this requirement.

2) Additionally, a waiver will be required of each applicant acknowledging their own responsibility in understanding and managing laser hazards and holding harmless the course and Professional Medical Education Association from any potential injury. Regardless, safety issues will be discussed in detail.

Course Description and Purpose of Advanced MLSO training: Once a MLSO has obtained the required initial LSO training in the theoretical and didactic training in maintaining a safe working environment with lasers, they can then benefit with additional practical hands-on experience in this workshop with a wide variety of medical laser systems to become more familiar with the characteristics of the various lasers and their delivery systems, a consideration described in the ANSI Z136.3 standards as important to the LSO in establishing Nominal Hazard Zones (NHZ). Familiarity with the operating characteristics and practical safety considerations of each laser type enhances the MLSO's ability to make "informed judgments" (per ANSI) about laser safety issues. Secondly, the MLSO will learn practical hands-on "inanimate" laser lab exercises that the MLSO may teach to physician staff in their orientation process to help them become more knowledgeable about the effective control of laser energy with these various lasers and delivery devices, separate from clinical procedure instruction and preceptorships. Such inanimate exercises are generally an initial stage in physician credentialing in many physician credentialing programs. You'll receive at the course a summary of how to set up individual laser stations, including suggested inanimate models to use, for inanimate lab training for physicians. Your workshop sessions will essentially duplicate this for your hands-on. Regardless, these exercises help the LSO become much more familiar with the characteristics of the lasers, which is important for safety evaluation and control of hazards.

Lasers/Modalities used in the training: The Advanced Medical Laser Safety Officer workshop may include, but not be limited to, hands-on practice with the following types of lasers/modalities:
1) CO_2 lasers with collimated beams, handpieces, laparoscopes and microscopes with appropriate inanimate models 2) CW Nd:Yag lasers to show fiber control and tissue effects 3) Ho:Yag lasers used with models to teach coordination in stone fragmentation and effects in bone ablation, and review of the actual measurements of the NHZ for these lasers 4) KTP lasers used on appropriate inanimate models 5) Ophthalmic Ion lasers for photocoagulation 6) Q-Switched Tattoo removal lasers including Nd:Yag, KTP and/or Ruby on appropriate models 7) Airway laser safety practice and demonstrations including creating live airway fires (inanimate model) and management steps taken in these emergencies 8) Practice with coordination of applying aesthetic lasers such as Alexandrite or Nd:Yag and special safety precautions taken around the bony orbit of the eye.

ADVANCED MLSO Workshop Outline – 1 Day:

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8am-5pm.

7:45am - Coffee, sign-in

8:00 am - Lecture overview of workshop, and review of essential safety practices including laser safety glasses and options for establishment of NHZ's under ANSI Z136.3. Differentiation of the Nominal Ocular Hazard Distance (NOHD) from the Nominal Hazard Zone (NHZ) General discussion. Review of laser protective eyewear.

8:50 am short break

9 am Start rotation among the lab stations, progressing from one to another

1. **CO2 laser**, burns, fires including ET tube, Collimated free beam, other delivery devices, inanimate models
2. **CW Nd:Yag laser**, free beam fibers, contact fibers and tips, inanimate models
3. **KTP laser**, free beam fibers, inanimate models

   LUNCH – provided, around 12pm pending progress at stations
4. **Ho:Yag** laser, inanimate models, review actual NHZ measurements (Thulium lasers are equivalent)
5. **Ophthalmic lasers** – **Argon, Diode, Q-Sw Nd:Yag, Laser Indirect Ophthalmoscope**
6. **Q-switched Tattoo** & Pigmented lesion removal lasers on inanimate models

5:00 pm Adjourn

Workshop held in the classrooms of The Laser Training Institute, Grove City Ohio (Columbus Ohio)
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