THEATRE AND CO₂ LASER PROTOCOL
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**Illuminated warning signs:** All entrance/exit doors should be marked with a warning sign, indicating that a laser is in use and that entry is only permitted to authorized persons wearing protective eye wear.

**Smoke evacuators:** Laser surgery results in considerable pollution of the operation theatre with smoke and vapor. The operating theatre must be well ventilated and equipped with dedicated smoke evacuators.

**Fire extinguishers for electrical fires:** A fire extinguisher containing co₂ gas or dry powder, together with a fire blanket, is positioned in close proximity to the main entrance door of the operating theatre.

**Protective eye wear:** Wavelength-specific eye wear is provided for all staff working in the theatre.

**Laser protection adviser**

In UK, the employer receives suitable advice regarding the safe installation and operation of the laser from a laser production adviser (LPA)

**Laser safety officer**

The LSO formulates local rules and ensures compliance within a specific local setting.

**Laser key holder and laser register**

The laser key holder (LKH) is the LSO or the deputy in charge of the theatre. The key is securely stored together with other keys in a designed area with restricted access. A register of any surgery involving lasers is also maintained, which provides a good reference for laser parameters used for any particular procedure.
Laser technician

A competent and trained laser technician (LT) is in charge of the laser during the session. He or she is not necessarily a nurse, but be a health care assistant or senior nurse with appropriate training. The LT connects all the monitoring, laser and suction equipments and carried our precession checks as follows: Test for misalignment of the co2 laser beam.

Laser register

A laser register contain the named of all theatre personnel authorized to take part in laser sessions, following attendance and certification at a recognized course.

Laser maintenance

The authors advocate biannual inspection of the equipment by competent engineers.

Laser malfunction

There will be instances where the laser malfunctions during a procedure. Standard surgical instruments should be readily available in the event of laser malfunction.

Spot size

It is necessary to appropriate, particularly during phonosurgical procedures, that the spot size of the visible beam bears no relationship to the spot size of the invisible infrared co2 laser beam.

Laser quality control

In the USA, all lasers must comply with the rules established by the Centre for Devices and Radiological health, a division of the Food and Drug Administration (FDA). In Europe, the Medical Devices Agency has similar function.