Laser Safety Management

Medical Lasers

Introduction

Lasers present a risk to the retina of the eye (which can result in permanent blindness). This information sheet summarises the main legal requirements for hospitals and clinics offering treatments using lasers.

Legal Requirements

Firstly, undertake a suitable and sufficient **risk assessment**. Various controls will result and will almost always include;

- Training (safe use of the equipment etc.),
- Control of access to treatment room/theatre,
- Provision of safety eyewear,

Safety Training and information must be provided to *all* staff that may be exposed to the risks from intense light.

Written policy/procedures must be in place (*if there are 5 or more employees*). In addition to a Health and Safety Policy (or even a 'laser safety policy'), this typically includes;

- General laser safety procedures ("local rules"),
- Specific instructions on safe use of equipment,

In addition to the above *absolute* requirements, businesses must also implement any other **reasonably practicable** controls to minimise the risks to clients, staff and members of the public.

Main applicable legislation

1. Health and Safety at Work Act 1974
2. Management of Health and Safety at Work Regulations 1999
3. Control of Artificial Optical Radiation at Work Regulations 2010
4. Provision and Use of Work Equipment Regulations 1998
5. The Personal Protective Equipment at Work Regulations 1992
6. Control of Substances Hazardous to Health Regulations 2002
7. The Personal Protective Equipment Regulations 2002
8. The Health and Safety (Safety Signs & Signals) Regulations 1996
9. The Workplace (Health, Safety and Welfare) Regulations 1992

Guidance

There is a fair amount of third party guidance and information available on the internet etc. Probably the best known guidance document is published by the *MHRA (DB 2008(03) Guidance on the safe use of lasers, IPL systems and LEDs).*

Other Hazards

In addition to the main risk of eye and skin damage, the follow hazards should also be considered;

- Fire /explosion,
- Electrical,
- Hazardous substances,
- Trip hazards and working environment,
- Personal safety /lone working,
- Cross infection,
- Laser 'plume' /adequate ventilation.

Common Safety Controls

Examples of typical controls include;

- Patient records /consultation /consent,
- Pre /post treatment care /advice,
- Confinement of laser to within the treatment room (closed doors, blinds on windows etc.),
- Control of access,
- Equipment design (e.g. footswitch guards),
- Training and information,
- Minimise highly reflective surfaces (mirrors),
- Ventilation /extraction,
- Consultation with laser safety specialist (LPA),
- Provision of PPE.

Training

All staff potentially exposed to laser light must be given suitable training and information. In addition, the laser users must be competent to use the equipment safely and carry out treatments.

It is also useful to provide key staff with practical laser safety management (sometimes referred to as 'core of knowledge').

Specialist help and advice

Legally, a '**competent person**' must lead the risk assessment process. For technical advice and specialist help, an external specialist known as a Laser Protection Adviser (LPA) may be required to fulfil this role and demonstrate legal compliance.

Information leaflet by

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