



Australian Government

SHBBSKT003 Identify and control safety risks for light-based skin treatments

Release: 1

SHBBSKT003 Identify and control safety risks for light-based skin treatments

Modification History

No equivalent unit.

Application

This unit describes the performance outcomes, skills and knowledge required to identify, eliminate or control health and safety risks and hazards associated with the use of intense pulsed light (IPL), light emitting diodes (LED) and laser for skin treatments.

It requires the ability to assess risks and hazards, and determine suitable action to eliminate or control safety risks.

This unit applies to practitioners working in beauty salons or skin clinics where skin therapy is provided.

The unit reflects the safety guidelines, for a broad range of clinic intense pulsed light, LED and laser dermal applications, expressed in the following Australian and New Zealand safety standards, current at the time of publication:

- AS/NZS 4173:2018 Safe use of lasers and intense light sources in health care
- AS/NZS IEC 60825.1:2014 Safety of laser products Part 1: Equipment classification and requirements
- AS/NZS 1336:2014 Eye and face protection Guidelines
- AS/NZS IEC 62471:2011 Photobiological safety of lamps and lamp systems.

The skills in this unit must be applied in accordance with Commonwealth and State or Territory legislation, Australian standards and industry codes of practice.

The use of intense pulsed light and laser is subject to legislation, regulation and licensing in some Australian states and territories.

Pre-requisite Unit

Nil

Competency Field

Skin Therapy

Unit Sector

Beauty

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes

1. Identify health and safety requirements for intense pulsed light, LED and laser skin treatments.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Interpret organisational policies and procedures to identify health and safety requirements for provision of intense pulsed light, LED and laser skin treatments.
- 1.2. Interpret legislative, regulatory, compliance and licensing information to identify regulatory health and safety requirements for the provision of intense pulsed light, LED and laser skin treatments.
- 1.3. Interpret industry and safety standard information to identify industry and standard health and safety requirements for the provision of intense pulsed light, LED and laser skin treatments.
- 1.4. Identify safety hazards related to features and functions of equipment used in intense pulsed light, LED and laser skin treatments.

2. Assess and control safety risks in the treatment environment.
 - 2.1. Complete equipment maintenance checks as per organisational requirements and manufacturer instructions.
 - 2.2. Comply with manufacturer instructions, safety data sheets and organisational policies and procedures to ensure correct functioning of intense pulsed light, LED and laser equipment.
 - 2.3. Review logs to confirm routine maintenance of intense pulsed light and laser equipment has occurred.
 - 2.4. Troubleshoot, report and escalate equipment and treatment safety issues according to organisational policies and procedures.
 - 2.5. Check equipment, report any equipment failures and faults to relevant personnel and document reporting activity in accordance with organisational policies and procedures.
 - 2.6. Check window coverings, hazard and warning signs to ensure they are correctly installed and used according to organisational policies and procedures and legislative requirements.
 - 2.7. Check treatment environment to ensure it is fitted with required plume extractor and smoke evacuation systems that provide safe ventilation according to current standards and organisational policies and procedures.
 - 2.8. Identify and remove potentially flammable and combustible items from treatment area.
 - 2.9. Check to ensure suitable fire extinguishers are available and correctly maintained.
 - 2.10. Prepare treatment area to minimise risk of laser treatment fire hazard associated with reflective equipment.
 - 2.11. Complete clinical procedure checklists and records according to federal, state or territory and local legislation, regulations and organisational policies and procedures.
 - 2.12. Clean, sanitise and store equipment according to manufacturer instructions and organisational policies and procedures.
3. Assess and control safety risks to practitioner and client.
 - 3.1. Identify actual and potential safety hazards and assess risks that may pose harm to the health and safety of practitioner, client and others who may be present during treatment.
 - 3.2. Use correct personal protective equipment for practitioner, client and others who may be present during treatment.
4. Respond to health and safety risks.
 - 4.1. Complete on-the-spot risk assessment and determine action and control measures to avoid injury to practitioner, client and others who may be present during treatment.

- 4.2. Take action to control safety risks within scope of own responsibility or refer to appropriate personnel for action.
- 4.3. Complete reporting and documentation according to organisational policies and procedures.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	- interpret both familiar and unfamiliar, and sometimes complex documents: - organisational policies and procedures - materials describing industry and regulatory requirements of intense pulsed light, LED and laser - non-ionising radiation safety protection plan - technical information on the function and operational characteristics of intense pulsed light, LED and laser equipment - manufacturer instructions for the safe use, maintenance and storage of intense pulsed light, LED and laser equipment.
Writing skills to:	produce documentation in relation to safety procedures and instructions using clear, non-technical language able to be understood by operators.
Numeracy skills to:	interpret units of measurement related to laser and intense pulsed light apparatus.
Problem-solving skills to:	identify suitable control methods and treatments to address safety hazards.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=255d312b-db07-48f2-b6d6-1b0b06c42898>

Assessment Requirements for SHBBSKT003 Identify and control safety risks for light-based skin treatments

Modification History

No equivalent unit.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- identify three safety hazards and complete three risk assessments in at least one of the following:
 - an intense pulsed light treatment environment
 - a LED treatment environment
 - a laser treatment environment
- develop, implement and maintain safety practices and risk control measures to respond to safety hazards associated with use of at least one of the following:
 - intense pulsed light
 - a LED treatment environment
 - laser
- for each of the above:
 - record workplace documentation and checks for the maintenance of equipment
 - complete workplace health and safety reporting related to intense pulsed light, LED or laser hair reduction treatments
- during risk assessments, follow organisational policies and procedures, non-ionising radiation safety protection plan and relevant state or territory laws, codes and guidelines related to the use of intense pulsed light, LED and laser for hair reduction.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- key aspects of current legislation, regulation and industry standards and guidelines relevant to intense pulsed light, LED and laser skin treatments:
 - laser classification and hazard analysis
 - maintenance and auditing of facilities
 - equipment inspection and maintenance protocols
 - investigation and management of intense pulsed light and laser incidents
 - personal protective equipment
 - potential for fire and explosion and protection against flammability hazards
 - management of airborne contaminants

- meeting licence requirements according to each state
- applying for a licence according to each state
- electrical safety laser-controlled treatment areas:
 - designation
 - warning signs
 - entry controls
 - control of access to the laser
- equipment classification
- safety of intense pulsed light, LED and laser products
- intense pulsed light and laser hazards:
 - beam hazards
 - non-beam hazards
- types of safety hazards related to intense pulsed light, LED and laser skin treatment:
 - ocular and skin
 - equipment specific
 - reflected beams
 - fire, explosive, electrical and environmental
- risk and hazard management including risk assessment
- hierarchy of hazard control:
 - engineering controls
 - administration controls
 - personal protective equipment
 - quality assurance testing and preventive maintenance
 - safe work practices
- control measures applied to minimise health and safety risks during intense pulsed light, LED and laser skin treatments:
 - pre-treatment patch testing
 - personal protective equipment:
 - eye protection
 - masks
 - gowns
 - gloves
 - ventilation systems
 - filtering and exhaust systems
 - window coverings
 - draping of treatment environment
- organisational work health and safety policies and procedures for:
 - identifying hazards
 - assessing risk
 - controlling risk

- non-ionising radiation safety protection plan
- ergonomics
- safe use of electrical equipment
- safe use of intense pulsed light, LED and laser equipment
- equipment preventive maintenance:
 - documentation, including:
 - equipment safety standards
 - equipment service history
 - schedule for recommended testing and maintenance
 - regular testing
- biophysics of laser and intense pulsed light technologies as outlined in *AS/NZS 4173:2018, Safe use of lasers and intense light sources in health care* or its replacement
- how light energy interacts with skin and hair
- physics of light related to intense pulsed light, LED and laser treatments:
 - energy forms
 - electromagnetic spectrum
 - optical region of the electromagnetic spectrum
 - wavelengths
 - characteristics of a wave
- operational characteristics of lasers:
 - programmable systems
 - basic set-up (manual choice)
 - generation of laser beam and propagation of light
 - characteristics of laser beams
 - properties of different types of lasers
 - optical pathways
 - delivery systems and applicators used for skin treatments
- operational characteristics of intense pulsed light apparatus:
 - programmable systems
 - basic set-up (manual choice)
 - powerful systems
 - significantly lower power systems
 - common differences in imported systems
 - chilled sapphire or similar optical substance head
 - non-chilled sapphire head
 - non-laser light source
 - characteristics of flashlamp
 - capacitors - free discharge and partial discharge
 - different filters
 - properties of intense pulsed light equipment

- laser controls:
 - emergency control
 - delivery systems
 - ionising and non-ionising radiation
- parameters that effect the delivery of light during intense pulsed light and laser treatments:
 - spectrum of delivered wavelengths as determined by cut-off filters
 - number of delivered pulses, including single and multiple pulsed shots
 - pulse duration in milliseconds
 - delay between pulses in milliseconds
 - delivered fluence
 - laser hazards
- operational characteristics of LED:
 - basic set-up (manual choice)
 - generation of light emitting diodes and propagation of light
 - characteristics of LED
 - types of light wavelengths
 - properties of LED equipment.

Assessment Conditions

Skills must be demonstrated in a skin treatment area; this can be:

- an industry workplace, or
- a simulated industry environment.

Assessment must ensure access to:

- documentation related to intense pulsed light, LED and laser treatments:
 - organisational policies and procedures
 - workplace reporting documentation and templates
 - current standards and guidelines:
 - AS/NZS 4173:2018 Safe use of lasers and intense light sources in health care
 - AS/NZS IEC 60825.1:2014 Safety of laser products – Part 1: Equipment classifications and requirements
 - AS/NZS 1336:2014 Eye and face protection – Guidelines
 - AS/NZS IEC 62471:2011 Photobiological safety of lamps and lamp systems
 - key aspects of relevant local, federal, state or territory, legislation and regulations relating to use of intense pulsed light and laser for skin treatments
 - manufacturer instructions and safety data sheets
 - non-ionising radiation safety protection plan
- a clinical treatment area:
 - as per relevant state or territory legislation either, or both, of the following:
 - a radiation warning sign

- an illuminated light above door
- non-flammable screens fitted inside all windows to protect a person outside window from non-ionising radiation levels greater than maximum permissible exposure from radiation
- ventilation designed to ensure that airborne hazards are not passed downstream in air handling or exhaust system
- fire extinguishing equipment
- sufficient clinical lighting
- magnifying lamp
- eye protection equipment for practitioners and clients compliant with AS/NZS 1336:2014 Eye and face protection – Guidelines
- disposable masks
- equipment which, when energised, can emit an amount of non-ionising radiation higher than accessible limit for a Class 3B laser for relevant period stated in, and measured in accordance with, laser standards AS2211. This must include a Class 4 laser or equivalent in the case of IPL
- one or more of the following:
 - cosmetic laser equipment that:
 - can treat Fitzpatrick skin types one to six
 - is registered for purpose on the Australian Register of Therapeutic Goods
 - intense pulsed light equipment that is registered for purpose on the Australian Register of Therapeutic Goods and has one or more of the following characteristics:
 - programmable
 - manual
 - multiple pulsed shots
 - single pulsed shots
 - appropriate cooling delivery systems
 - one or minimal choice of filters
 - multiple filters
 - LED devices which are registered for purpose on the Australian Register of Therapeutic Goods
- activities that require the individual to work within commercially realistic timing and productivity.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors, and:

- have worked for at least three years where they have applied the skills and knowledge of this unit of competency.

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