

UNITED ARAB EMIRATES
MINISTRY OF HEALTH & PREVENTION



الإمارات العربية المتحدة
وزارة الصحة ووقاية المجتمع

DENTAL LABORATORY REGULATION

Empowerment And Health Compliance Department

Ministry Of Health And Prevention

(2018)



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Acknowledgment

Ministry of health and prevention (MOHAP) is pleased to present the **Dental Laboratory Regulation** which represents a milestone towards fulfilling the MOHAP strategic objectives in providing “A world class integrated health system that ensures excellence in health and healthcare for the Emirates that follow MOH.

This Regulation places an emphasis on facility design and services criteria with a focus on quality of services and safety of professionals based on the local and federal laws in addition to international accreditation standards.

Therefore, this document provides a base for the Ministry of health and prevention (MOHAP) to assess the Dental Laboratory’ performance and to ensure safe and competent delivery of services. It will also assist the Dental Laboratories in developing their quality management systems and in assessing their own competence to ensure compliance with MOHAP regulatory requirements.



I. Scope

This regulation applies to all dental laboratories, whether associated with dental clinics or independent dental laboratories, subject to licensure under the Ministry of health and prevention (MOHAP) establishment law which includes semi-governmental, private dental laboratories

The MOHAP reserves the right to amend the **Dental Laboratory Regulation** stipulated herein without prior notice; the latest version of the regulation shall be published on the MOHAP website www.moh.gov.ae.

II. Purpose

The MOHAP is the sole responsible entity for regulating, licensing and monitoring all healthcare facilities and healthcare professionals in the emirates that follow federal authority. Through the development, establishment, and enforcement of this regulation which matches best practices for operating Dental Laboratories, the MOHAP will ensure provision of the highest levels of quality and healthcare services at all times.



CHAPTER ONE:
DENTAL LABORATORY DESIGN
REQUIREMENTS



1. Physical Facility Criteria

1.1. General design considerations

- 1.1.1. Dental laboratory dimensions: **8m² for two chairs-20m² for four chairs-30m² for six chairs**
- 1.1.2. Facility total floor shall be proportional to the functional program of the facility.
- 1.1.3. Ceiling of dental laboratory should not be less than 2.7m.
- 1.1.4. The minimum corridor width in dental laboratory should be 1.2m
- 1.1.5. Combination or sharing of the facility functions should be official.
- 1.1.6. The design, construction, renovation, expansion, equipment, and operation of health care facilities are subject to provisions of several local and federal laws environmental pollution control. Which include the storages and disposing of hazardous and medical waste materials. The area should be providing good ventilations.
- 1.1.7. Disposing hazardous medical liquids, drugs, solutions and dangerous chemical materials into usual sewage disposal are prohibited.
- 1.1.8. Flooring surfaces and wall finishes should be easy to maintain, easy to clean and carpets for the flooring is not allowed.
- 1.1.9. Joints for floor openings for pipes and ducts shall be tightly closed.
- 1.1.10. Laboratory work areas shall include sinks with water and access to vacuum, gases, telephone /data service, and electrical service as needed.
- 1.1.11. Dental laboratory shall include emergency shower, eye- flushing devices, and appropriate storage for flammable liquids, etc.
- 1.1.12. The facility should be clean and properly maintained and have suitable day light and ventilation.
- 1.1.13. The laboratory should provide a ventilation system if the there is no local exhaust is provided.
- 1.1.14. Technicians can have their own workbenches that are prepared according to the scope of work.



- 1.1.15. Counter space and workbenches should be enough in dental laboratory to work with Plaster of Paris and gypsum products and a dedicated product dispenser.
- 1.1.16. They must place gases which they will use in safe place, away from flammable gases and with marked position.
- 1.1.17. “Casting well(s) must be made of non-flammable materials, as well as all lubricants, cleaners, etc. used on the equipment. This includes any product that contains a propellant which can get trapped in the well and ignite when heated. Proof of compliance can be demonstrated by posting a sign on the machine or in close proximity to it, plus showing documentation that employees have been trained on this safety precaution”
- 1.1.18. First aid kit(s) must be accessible and regularly maintained.
- 1.1.19. Dental Laboratory Infection Control: Items that ultimately come in contact with mucous membranes requires sterilization. Heat sensitive items that cannot be heat sterilized must be disinfected using a minimum intermediate – level (tuberculocidal)
- 1.1.20. There should be a dedicated place to mold metal (especially crowns, bridges, chrome cobalt).
- 1.1.21. There should be a dedicated place to mould ceramics, that is isolated from the other area of the dental laboratory with dust protection (dust extraction device).
- 1.1.22. There should be a dedicated place for the polishing process.
- 1.1.23. Requirements for proper hand hygiene shall include:
- 13.1.16.1. Conveniently located hand wash basins, used only for washing purpose with hands free operating taps.
- 13.1.16.2. Wall mounted non-refilling liquid soap dispenser next to each hand wash basin.



- 13.1.16.3. Wall mounted paper towel in use.
- 1.1.24. Approved list of antiseptic and disinfectants shall be used in the facility and storage them in a safe way according to manufactures instructions.
- 1.1.25. Material Safety Data Sheets (MSDS) shall be available for all chemical agents and disinfectants solutions used in the facility.
- 1.1.26. Equipment storage, cleaning disinfection and sterilization methods are appropriate for the type of instrument/equipment used in the facility.
- 1.1.27. Each dental laboratory facility shall arrange vaccination of HCW's. Recommended immunizing agents and immunization schedules for HCW's is available in *Appendix 1* Proof of HCW's immunization should be maintained in the facility.
- 1.1.28. The facilities of Lounge, locker and toilet should be located for male and female laboratory staff.
- 1.1.29. There should be a storage space available to keep the laboratory materials.
- 1.1.30. Waste and environmental management should support safe practice and a safe environment. The dental laboratory facility should develop and implement waste and environmental management policies.
- 1.1.30.1. The policy shall include segregation and disposal of waste in a right way according to regulations.
- 1.1.30.2. The waste management policy shall cover handling, storing, transporting, and disposing all kinds of waste.
- 1.1.30.3. The facility must have contract with a specialized company to regularly collect, transport and destroy waste materials according to the local regulations.
- 1.1.30.4. Cleanliness throughout the facility shall be maintained by trained domestic help.

1.2. Working space requirements includes, but not restricted to:

- 1.2.1. A hard stone surface as a counter space.



- 1.2.2. Bench with light.
- 1.2.3. Laboratory chairs.
- 1.2.4. Bunsen burner.
- 1.2.5. Hand piece and controller.
- 1.2.6. Suction unit for dust extraction.
- 1.2.7. Drawers.

1.3. Lighting

- 1.3.1. The artificial light should be provided in the working tables and working area.
- 1.3.2. The Natural lighting is useful for the ceramics room area to differentiate the ceramics color, so make sure to have opening to natural light on that room.

1.4. Ventilation

- 1.4.1. The facility shall be provided with suctioning fans: to refine the atmosphere and with special suction placed above the thermal ovens to suck the ascending vapors and gases out of the ovens.

1.5. Safety

1.5.1. Fire Safety and Security Management

Dental Laboratory facility management shall ensure that the health care environment is safe, functional, supportive and effective for all the staff members.

1.5.1.1. The facility shall establish a fire safety plan for early detection, confining, extinguishment, rescue, evacuation and alerting the Civil Defence.

1.5.1.2. The facility shall maintain fire extinguishers and fire protection equipment and devices as per the Civil Defence requirements.



- 1.5.1.3. Should all staff in laboratory take train to respond to fire events in the buildings.
 - 1.5.1.4. There should be evacuation maps posted in the facility to indicate current locations marked with "You are here" to provide information regarding Escape routes and Fire exits.
 - 1.5.1.5. The facility staff shall be aware about the following:
 - 1.5.1.5.1. Location and use of fire hose reel/cabinets/blankets.
 - 1.5.1.5.2. Assembly points
 - 1.5.1.5.3. Fire alarms/ call points break glass / pull station.
 - 1.5.1.6. The facility shall follow the fire prevention and safety measures required by Civil Defence.
 - 1.5.1.7. Security personnel (if available) should be educated and provided with information in relation to security risks and responsibilities and oriented on their scope of work, fire safety and emergency codes.
 - 1.5.1.8. Emergency contact number for local police and Civil Defence shall be displayed.
 - 1.5.2. The facility must have a policy on "Disaster Management" and communicate this with all the staff members.
 - 1.5.3. Hazards that may lead to slipping, falling, electrical shock, burns, poisoning, or other trauma should be identified and eliminated.
 - 1.5.4. Laboratory floor should be made of fire proof material.
 - 1.5.5. The health and safety of employees should be conforming to regulations.
- 1.6. Drainage System**
- 1.6.1. Water drainage system should be wide enough to allow easy passage of water.
 - 1.6.2. Filters should be placed under the basins which prevent the dirt left from



work to go through drainage system, so this special filter will collect them.

1.7. Smoking Policy

- 1.7.1. Smoking inside the dental laboratory is not allowed for all professionals and visitors.
- 1.7.2. The facility management is responsible to implement this policy.
- 1.7.3. Signboards should be fixed at the main entrance, alerting individuals regarding this policy.

1.8. Equipment

- 1.8.1. The facility should be equipped with the appropriate equipment and supplies which are required in order to provide the services. Lists of these instruments are listed below but are not restricted to only these.
- 1.8.2. All equipment used should be inspected, maintained and tested according to manufacturer's specifications.
- 1.8.3. The area used to mould metal should include the following but not restricted to:
 - 1.8.3.1. Casting machine for casting all dental alloy
 - 1.8.3.2. Preheating furnace
 - 1.8.3.3. Wax elimination furnace
 - 1.8.3.4. Soldering unit
 - 1.8.3.5. Sand blast unit
- 1.8.4. The area used to mold ceramics should include the following, but not restricted to:
 - 1.8.4.1. Porcelain furnace
 - 1.8.4.2. Ultra sonic unit
- 1.8.5. The area used for polishing should include the following, but not restricted to:



- 1.8.5.1. Polishing unit for dry and wet polish
- 1.8.5.2. Electrolytic polishing unit
- 1.8.5.3. High-speed grinder
- 1.8.6. There must be a specified place for the following equipment:
 - 1.8.6.1. Polymerization unit
 - 1.8.6.2. Burn out unit
 - 1.8.6.3. Flask press
- 1.8.7. There must be a specified place for models that includes the following, but not restricted to:
 - 1.8.7.1. Model trimmer (single or double disc).
 - 1.8.7.2. Vibrator.
 - 1.8.7.3. Plaster dispenser.
 - 1.8.7.4. Model duplicate unit



Appendix 1

Vaccine	Indications	Dose Schedule
HEPATITIS B recombinant vaccine	3-dose schedule, IM in the deltoid 2 nd dose given 1 month after 1 st dose 3 rd dose given 4months	Workers at risk of exposure to blood and body fluids
INFLUENZA vaccine (inactivated)	Annual single-dose vaccination, IM, with current vaccine	Workers who have contact with patients at high risk or working in chronic-care facilities; workers age 50 or over or who have high risk medical conditions
MEASLES live-virus vaccine	1 dose SC; 2 nd dose at least 4weeks later.	Workers born during or after 1957 without documentation of (1)receipt of two doses of live vaccine on or after their first birthday, (2)physician-diagnosed measles or (3) laboratory evidence of immunity. Vaccine should also be considered for all workers, including those born before 1957, who have no proof of immunity.
MUMPS live-virus vaccine	1 dose SC; no booster	Workers believed to be susceptible can be vaccinated; adults born before 1957 can be considered immune.
RUBELLA live- virus vaccine	1dose SC; no booster	Male female workers who lack documentation of receipt of live vaccine on or after their first birthday or who lack laboratory evidence of immunity. Adults born before 1957 can be considered immune, except women of child bearing age.
VARICELLA-ZOSTER live-virus vaccine	Two 0.5mL doses SC; 4-8 wks if age 13 or older.	Workers without reliable history of varicella or laboratory evidence of varicella immunity.