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Chapter 1
PROVISION OF ORAL SURGERY CARE TO THE POPULATION

Oral surgery care for adults in the Russian Federation is provided by medical and preventive institutions, the activities of which are regulated[1] and aimed at the detection, treatment and prevention of diseases of the maxillofacial region (MFR).

There are medical and preventive institutions that provide oral surgery care.

- **Dental office** is a structural unit of a department limited to one room; sometimes, it is an independent medical institution that provides dental care in accordance with its profile.
- **Oral surgery department** is a structural unit of a medical and preventive institution, a dental clinic or a clinic for the provision of dental care in its profile. Dental departments can be a part of multi-specialty clinics, multi-specialty hospitals, research centers and institutes, specialized centers, clinical and diagnostic centers, and hospitals.
- **Dental polyclinic** (either district, city or regional) is a medical institution designed to provide all types of dental care, except for inpatient surgery care. The structure of a dental polyclinic includes the main departments (therapeutic, oral surgery, prosthodontics) and auxiliary services (reception, X-ray room, room for physical therapy, dental laboratory, diagnostic laboratory, housekeeping unit).
- **Mobile dental team** is a team of specialists with mobile equipment that provides care in remote places, educational and other institutions, at workplaces, as well as provides home visits to seriously ill and handicapped patients.

The main place in the structure of dental service belongs to dental polyclinics. According to Appendix 1 of the Order of the Ministry of Public Health and Social Development of the Russian Federation No. 633 of 13.10.2005 "About organization of medical care", there are three levels of dental care:

- **qualified** (dental offices and departments in general profile polyclinics, district hospitals, medical and sanitary units, etc.);
- **specialized** (departments of dental clinics, dental departments in general profile polyclinics, hospitals, etc.);
- **highly specialized** (departments of large multidisciplinary polyclinics and hospitals, dental faculties of universities, research institutes).

[1] Order of the Ministry of Health and Social Development of the Russian Federation dated 07.12.2011 No. 1496n "On approval of the Procedure for the provision of medical care to the adult population with dental diseases".

1.1. REGULATORY REQUIREMENTS FOR INSTITUTIONS PROVIDING ORAL SURGERY CARE

The organization and work of dental medical and preventive institutions (polyclinics, departments and offices) is carried out in strict accordance with the sanitary rules for the structure, equipment, exploitation of outpatient and polyclinic institutions of dental profile, labour protection and personal hygiene of personnel[2].

The best option for the arrangement and location of dental clinics is a free standing standardized building. Subject to the hygienic conditions stipulated by the sanitary rules, it is possible to place dental offices in equipped rooms built into buildings and residential buildings, provided that there are no X-ray and physiotherapy installations in them. Dental departments and offices may also be organized in multidisciplinary clinics, hospitals, sanatoriums, educational institutions and other institutions where dental care is needed.

According to sanitary rules, at least five separate rooms are required to organize an **oral surgery department** in a dental clinic.

- Waiting room (based on 1.2 m^2 per patient, but not less than 4.8 m^2 based on four patients simultaneously awaiting a doctor's appointment).
- Pre-operating room (at least 10 m^2).
- Operating room (with floor space at least 23 m^2 per one dental chair/operating table, adding 7m^2 when installing each additional chair/table).
- Sterilization room (at least 8 m^2).
- Recovery area.

Surgical interventions, for which anesthesiology and resuscitation are needed, are carried out in an operational unit. In such a case, a room for the temporary stay of a patient after surgery — the recovery area — should be established. In an operating room, if necessary, the supply of medical gases can be provided.

To open an oral surgery office, at least three separate rooms are required.

- Waiting room (when arranging a dental office on the basis of a medical institution, it is allowed for a patient to wait in a common room);
- Room for sterilization of instruments, preparation of materials, and training of personnel (with a floor space of at least 10 m^2, equipped with a fuming board).
- Operating room (with a floor space of at least 14 m^2 per one dental chair, with the addition of 7 m^2 with each additional chair).

Oral surgery offices in dental polyclinics are equipped with centralized or autonomous systems of water supply (cold and hot), sewerage, heating and ventilation.

For the walls, only materials that are approved for the use in rooms with a wet aseptic regime and are resistant to disinfectants are allowed. The walls of an oral surgery office are veneered with ceramic tiles to a height of at least 1.8 m, while in an operating room they reach the full height. The corners and joints of walls, ceiling and floor of oral surgery department offices of a dental polyclinic or hospital (operating,

[2] SanPiN 2.1.3.2630-10 "Sanitary and epidemiological requirements for organizations providing medical care" (approved by Resolution of the Chief State Medical Officer of the Russian Federation of 18.05.2010 № 58; amended in 2016 and approved by Resolution of the Chief State Medical Officer of the Russian Federation of 04.03.2016 № 27).

pre-operating, dressing rooms) must be smooth, without cracks (ceiling height — at least 3 m, room depth — no more than 6 m). Doorways and windows should also be smooth, easily subject to wet cleaning.

Ceilings of dental offices, operating, pre-operative, sterilization rooms are painted with water-based or other paints. It is possible to use suspended ceilings if this does not affect the standard height of the room. Suspended ceilings are made of slabs (panels) with a smooth non-perforated surface, resistant to the actions of detergents and disinfectants.

The floor in oral surgery offices and other areas of an oral surgery department must be antistatic; it is laid with rolled linoleum (polyvinylchlorinated material) or ceramic tiles there, and with polymer-cement mastic or ceramic tiles in an operating room.

Dental offices are equipped with a system of general exchange mechanical ventilation (push-pull ventilation), with an air exchange rate of 3 times per hour for the exhaust and 2 times per hour for the inflow. Autonomous ventilation systems are provided for operating rooms with pre-operative ones, as well as for sterilization and X-ray rooms.

Regardless of the presence of general ventilation, offices need easily opened transoms or window leafs. In a dental office, it is important to maintain the temperature regime: it should be 18–23 °C in the cold season, and 21–25 °C in the warm season.

The office should have both natural and artificial lighting. Sunscreens are allowed, however, in operating rooms and oral surgery offices, shutter-type sunscreens are placed between window frames. General artificial lighting is provided by fluorescent or incandescent lamps. For general fluorescent lighting, it is recommended to use lamps with an emission spectrum that does not distort color rendition. The illumination level of the office must be at least 500 luces. General lighting fixtures are placed so that they do not fall into the working doctor's field of view. Illumination created by a reflector (local source) should not be used to improve the general illumination by more than 10 times (within 2000–2500 luces), so as not to cause tiring light readaptation for the doctor's eyes when looking from different illumination.

In dental offices, there are separate or double bowl sinks, equipped for hand and tools treatment. In the presence of a sterilization room and with the arrangement of centralized pre-sterilization processing of instruments, the presence of a single sink in an office is allowed. In an operating room, the sinks are installed in the pre-operating room. Elbow or sensor mixers are installed in oral surgery offices, sterilization, and pre-operating rooms.

To decontaminate air in the offices, installation of bactericidal irradiators is provided. The irradiators are switched on before and after work. After the action of a bactericidal irradiator (30–60 min), a mechanical ventilation system is switched on to remove ozone and nitrogen oxides formed during the operation of the irradiator from the room. The use of recirculating air purifiers may be recommended for air purification and disinfection.

1.2. EQUIPMENT OF AN ORAL SURGERY DEPARTMENT (OFFICE)

All oral surgery rooms and departments should be provided with medical equipment and medical devices in sufficient quantity for uninterrupted operations, taking into account the time required for their processing between manipulations in patients. Mandatory equipment includes a dental chair (or several), a shadowless lamp, furniture (instrument tables, doctor's chair, etc.), dental tips, bactericidal and ultraviolet (UV) lamps. Dental tools include carpool syringes, tweezers (dental, surgical, anatomical), mirrors, spatulas, sets of forceps for teeth extraction, elevators, scalpels and scalpel holders, retractors, rasps, curettage spoons, chisels, hemostatic clamps, needles, needle holders, straight and curved probes, probes for the inspection of salivary glands. Sterile products are placed on a doctor's dental table (on a sterile tray or a sterile napkin) right before manipulations in a patient start.

In an oral surgery department (office), it is necessary to have a physiodispenser with a set of tips (straight and angular), drills and cutters (Fig. 1.1).

Fig. 1.1. Physiodispenser

Wet cleaning is carried out at least 2 times a day between working shifts and at the end of each working day by irrigation and/or wiping (according to the disinfection modes in bacterial infections). Window panes should be washed at least once a month from the inside and at least once every 3 months (in spring, summer and autumn) from the outside. Disinfection of the surfaces of objects located in the treatment area (i.e. instrument table, control panel, puster, lamp, spittoon, headrest and armrests of the dental chair) is carried out after each patient. For this purpose, one should use disinfectants that are approved for utilization in the presence of patients and have a wide spectrum of antimicrobial action (e.g., virucidal, bactericidal, fungicidal).

Once a week, it is necessary to carry out general cleaning in an operating unit, oral surgery office and sterilization room with the use of disinfectants. After disinfection, the room is irradiated with a bactericidal lamp and ventilated with mechanical ventilation. To assess the sanitary condition of the room, bacteriological control must be used.

1.3. LABOUR ORGANIZATION AND CLINICAL CARE IN AN ORAL SURGERY DEPARTMENT (OFFICE)

Staff standards of budget-funded medical organizations are set on the basis of the Order of the Ministry of Health of the USSR No. 504 of 31.08.1989, according to which four dentists are allocated for 10 thousand people. The number of surgeons among them depends on the number of people who seek help. The nursing staff is established at the rate of one position per each position of a surgeon, the staff of nursing aides — at the rate of one position per each position of a doctor.

In outpatient settings, it is possible to carry out only those dental interventions, after which patient can return home alone or accompanied by relatives. Scheduled operations are assigned for a specially provided operating day.

In an oral surgery office, the following types of surgical interventions can be performed:

- tooth extraction;
- tooth-preserving operations;
- periodontal surgery;
- excision of jaw cysts;
- dental implant surgery;
- treatment of non-severe pyoinflammatory processes (abscesses of the oral cavity and skin);
- treatment of minor injuries of the MFR (abrasions, bruises, superficial wounds);
- first aid during fractures of the facial skull;
- first aid in the case of emergency.

In **oral surgery departments**, the following surgical interventions are possible:

- tooth extraction;
- tooth-preserving operations;
- periodontal surgery;
- excision of jaw cysts;
- dental implant surgery;
- non-operative treatment of diseases of salivary glands;
- treatment of non-severe pyoinflammatory processes (abscesses of the oral cavity, abscessing lymphadenitis, etc.);
- treatment of minor injuries of the MFR (abrasions, bruises, superficial wounds);
- treatment of uncomplicated fractures of the facial skull (within conservative and orthopedic measures);
- first aid during fractures of the facial skull;
- first aid in the case of emergency conditions;
- in the presence of a team of anesthesiologists and appropriate equipment, surgical interventions may be carried out under general anesthesia.

The work of an oral surgery office is organized taking into account the division between “clean” (planned) and “purulent” interventions. Planned interventions are carried out on specially designated days with preliminary general cleaning.

Primary patients are admitted to an oral surgery department through registry or by transfer (referral) from other departments of a polyclinic. First of all, examination