



CENTRUM MEDYCZNE  
KSZTAŁCENIA  
PODYPLOMOWEGO

**Specialisation  
programme in the field  
of**

**MAXILLO-FACIAL SURGERY**

for dentists holding a level II specialisation or a specialist title in dental  
surgery

(Applicable to dentists who have commenced specialisation training as a result of the  
qualification procedure - spring 2023).

I approve  
under the authority of the Minister  
for Health Piotr Bromber  
Undersecretary of State  
*/electronically signed document/*

Warsaw 2023

## **The specialisation programme was developed by a team of experts consisting of:**

1. Dr Mariusz Szuta - national consultant in maxillo-facial surgery;
2. Prof. Dr. Hanna Gerber - representative of the national consultant;
3. Prof. Dr. Marcin Kozakiewicz - representative of the Polish Society of Dental and Maxillofacial Surgery;
4. Dr Jan Borys - representative of the Supreme Medical Council;
5. Dr Barbara Drogoszewska - representative of the Medical Centre for Postgraduate Education;
6. Dent. Jan Harasiewicz - representative of the Supreme Medical Council undergoing specialisation training.

## **I. OBJECTIVES OF SPECIALTY TRAINING**

### **1. General objectives**

The aim of the specialty training is to train an oral and maxillofacial surgeon with the knowledge and practical skills to independently diagnose and surgically treat diseases and carry out rehabilitation tasks according to the highest standards in contemporary oral and maxillofacial surgery.

In pursuit of this objective, it is expected that the doctor will, in the course of specialty training, master the full range of required contemporary knowledge as defined by this programme, acquire the necessary proficiency in the performance of surgical procedures and the application of medical procedures, and acquire skills in the use of contemporary methodology.

### **2. Professional competences acquired**

***The aim of the specialty training is to obtain a specific qualification in the field of maxillofacial surgery enabling, according to the with modern medical knowledge:***

- 1) diagnosis and surgical treatment of soft tissue diseases of the craniofacial region and neck, oral cavity, craniofacial bones including the base of the anterior cranial fossa, the temporo-parietal joints mandibular, potentially malignant disorders and benign tumours and

malignancies of the face, mouth and neck and craniofacial region, cranio-maxillofacial trauma, congenital and acquired cranio-maxillofacial malformations;

- 2) providing medical assistance in the event of a health emergency;
- 3) supervising and managing the rehabilitation of patients;
- 4) to decide on the need for therapeutic rehabilitation, incapacity for work, incapacity for gainful or farm work, damage to health and disability due to diagnosed and treated diseases;
- 5) Preparing opinions, judgements and conclusions on treated patients;
- 6) providing medical consultations in the field of maxillo-facial surgery to doctors of other specialities;
- 7) conducting health promotion and disease and injury prevention;
- 8) the practice of individual specialised medical practice or the provision of health services as part of a group medical practice in the field of maxillo-facial surgery;
- 9) Directing an oral and maxillofacial surgery clinic, department or outpatient clinic;
- 10) Directing the specialty training of other doctors and dentists in maxillo-facial surgery;
- 11) continuing professional development for other medical professionals;
- 12) directing a medical experiment in maxillo-facial surgery.

### **3. Acquired social competences**

***The dental practitioner shall, during the course of specialisation training, form and develop an ethical attitude and improve his/her social competence, in particular:***

- 1) being guided in their actions by the overriding principle of the well-being of the patient;
- 2) respect for the socially accepted system of values and principles deontological;
- 3) ability to make decisions and willingness to take responsibility for his/her own conduct and that of the team entrusted to him/her;
- 4) ability to organise one's own work properly and to work harmoniously in a team;
- 5) the ability to establish a relationship with the patient and the patient's family and carer, respecting personal dignity and cultural, ethnic and social diversity;
- 6) knowledge of the psychological determinants of the doctor-patient relationship;

- 7) ability to communicate health status, prognosis and diagnostic and therapeutic management.

## II. KNOWLEDGE REQUIRED

***It is expected that the dental practitioner, on completion of specialty training in the field of maxillo-facial surgery will demonstrate the knowledge outlined below:***

- 1) the management of cardiopulmonary resuscitation at the level provided for the *Immediate Life Support* (ILS) course;
- 2) principles of emergency management in:
  - a) acute cardiopulmonary failure,
  - b) sudden cardiac arrest,
  - c) acute upper airway obstruction,
  - d) shock,
  - e) acute post-traumatic upper respiratory tract bleeding,
  - f) multi-organ trauma;
- 3) indications and methods of performing a tracheotomy;
- 4) pathology and diagnosis of traumatic shock, haemorrhagic shock, burns and septic and treatment of shock;
- 5) pathogenesis, diagnosis, differentiation and treatment of haemorrhages and determination of indications for surgical and conservative treatment in haemorrhages;
- 6) Principles of recognition and tactics for management of multiple injuries;
- 7) principles of diagnosis and management of spinal and limb injuries;
- 8) principles of diagnosis and management of thoracic trauma;
- 9) causes, diagnosis and management of gastrointestinal bleeding gastrointestinal;
- 10) Pathogenesis, diagnosis, differentiation, treatment and prognosis of acute abdominal surgical diseases;
- 11) pathogenesis, diagnosis and treatment options for coagulation disorders (plasma and vascular blemishes and thromboembolism);
- 12) diagnosis and treatment of arterial blockages;
- 13) principles of prophylactic anticoagulant management;

- 14) Pathogenesis, diagnosis, treatment and prognosis of burn disease;
- 15) Pathogenesis, prevention and treatment of renal failure of surgical patients;
- 16) disorders of protein, carbohydrate, water-electrolyte, acid-base and calcium-phosphate metabolism;
- 17) Pathophysiology of healing and treatment of clean and infected wounds and management of purulent infections;
- 18) principles of parenteral and enteral nutrition;
- 19) fundamentals of transplant surgery;
- 20) diagnostic and treatment options and fundamentals of surgical techniques used in maxillofacial surgery, surgical accesses used in maxillofacial surgery, methods of surgical suturing, types of sutures, pathophysiology of soft tissue healing;
- 21) indications and contraindications for elective and elective surgery urgency, preparation of the patient for surgery and anaesthesia and assessment of the surgical and anaesthetic risks;
- 22) postoperative management, prevention, recognition and treatment of postoperative complications, principles of postoperative pain management;
- 23) specifics of diagnosis and treatment in paediatric surgery;
- 24) diagnosis and diagnosis of congenital malformations in children;
- 25) Fundamentals of developmental traumatology, with particular emphasis on multiple organ injuries and craniocerebral trauma;
- 26) Fundamentals of management in neurotraumatology and neurosurgery, and in particular concerning:
  - a) fractures of the bones of the cranial vault,
  - b) intracranial haematomas,
  - c) surgical treatment of tumours in the anterior cranial fossa,
  - d) treatment of post-traumatic meningeal tears with cerebrospinal fluid leakage in the anterior cranial fossa area;
- 27) sinus anatomy;
- 28) principles of diagnosis and treatment of diseases of the nose, pharynx and larynx;
- 29) diagnosis, differentiation and treatment of peri-tonsillar abscesses;

- 30) diagnosis, differentiation and treatment of cancer of the larynx and pharynx;
- 31) sinusitis;

- 32) Epidemiology, aetiopathogenesis and complications of maxillary sinusitis;
- 33) Causes, treatment methods and complications of dental sinusitis;
- 34) Tumours of the maxillary sinuses - diagnosis, treatment;
- 35) The usefulness of imaging studies in the diagnosis of maxillary sinus disease;
- 36) Surgical anatomy of the craniofacial skeleton, with particular emphasis on the orbit;
- 37) Epidemiology of craniofacial skeletal fractures, clinical and anatomopathological classification of fractures;
- 38) modern diagnosis of injuries to the cerebral and facial parts of the skull;
- 39) Imaging diagnosis of craniofacial skeletal fractures, conventional examinations, CT (computed tomography), MRI (magnetic resonance imaging), ultrasound (ultrasonography);
- 40) Post-traumatic visual impairment in craniofacial skeletal fractures - diagnosis, differentiation, treatment, prognosis;
- 41) Ophthalmic examination and specialised assessment of visual damage;
- 42) Intracranial complications following trauma to the craniofacial skeleton;
- 43) Intracranial complications in orbital fractures;
- 44) methods of treating fractures of the bones of the craniofacial region, in particular:
  - a) Stable osteosynthesis, biology of fracture healing,
  - b) surgical treatment of fractures of the jaws and bones of the facial part of the skull,
  - c) Surgical treatment of zygomatic-maxillary-orbital fractures,
  - d) Orbital reconstruction with grafts or implants;
- 45) treatment: ZJO (zygomatic-orbital fracture) , ZJSO (zygomatic-jaw-orbital fracture), ZIDO (isolated orbital floor fracture);
- 46) treatment: DON (orbital-nasal dislocation), PGMT (displacement of the upper facial massif), ZCON (frontal-orbital-nasal fracture), ZCO (cranioorbital fracture);
- 47) Mandibular surgical anatomy;
- 48) Epidemiology of mandibular condylar process fractures, fracture classifications, clinical presentation, complications;
- 49) Diagnosis and radiological assessment of mandibular condylar process fractures;
- 50) conservative orthopaedic treatment and surgical treatment of mandibular condylar process fractures;

- 51) epidemiology, aetiological factors, distribution and diagnosis and differentiation of head and neck cancers;
- 52) Potentially malignant skin and mucosal disorders - predisposing factors for oral and craniofacial cancers, types of potentially malignant disorders, diagnosis, clinical management;
- 53) Division of benign tumours and their morphological and clinical features;
- 54) Division of malignant tumours, TNM classification;
- 55) morphological and clinical features of malignant tumours;
- 56) Alveolar neoplasms - clinical and morphological characteristics;
- 57) diagnosis and treatment of benign and malignant skin tumours;
- 58) Principles of diagnosis of cancers of the oral cavity, jawbone, face and neck:
  - a) biopsy, fine-needle aspiration biopsy (BAC),
  - b) X-ray, CT, MRI, ultrasound diagnostics;
- 59) treatment methods for benign tumours and tumour-like tumours of the craniofacial region and neck;
- 60) Surgical management of malignant tumours of the oral cavity and craniofacial region and neck;
- 61) combined treatment of craniofacial and neck malignancies (surgery, radiotherapy, brachytherapy, chemotherapy, immunotherapy) -indications, contraindications, complications;
- 62) principles of pain management in oncology patients;
- 63) management of patients after surgery - early and late prosthetic rehabilitation, outpatient follow-up;
- 64) the role of the general practitioner and dentist in early diagnosis and prevention of cancer;
- 65) basics of head and neck embryology;
- 66) Aetiopathogenesis of facial and oral malformations, their division and diagnosis;
- 67) clefts of the face and mouth;
- 68) complex craniofacial malformations (e.g. Crouzon syndrome, Apert syndrome, Pierre Robin syndrome, Mobius syndrome, Caffey and Silverman syndrome, Parry and Romberg syndrome);
- 69) developmental defects of the bones of the facial part of the skull (micro- and retrognathia, macro- and microgenia, laterogenia, etc.);



- 70) principles of diagnosis and planning of surgical treatment of congenital and acquired craniomaxillofacial defects;
- 71) management of congenital or acquired skeletal deformities the facial part of the skull using distractors;
- 72) methods for the reconstruction of craniofacial defects;
- 73) The surgical anatomy of the temporomandibular joint;
- 74) Aetiopathogenesis, epidemiology and clinical-ethiopathological classification of diseases  
Temporomandibular joints;
- 75) clinical examination of patients with temporomandibular joint pathology;
- 76) Imaging diagnosis of the temporomandibular joints, usefulness of RM examinations in the diagnosis of temporomandibular joint diseases;
- 77) Psychological conditions in temporomandibular joint pathology;
- 78) Conservative and surgical treatment of temporomandibular joint disorders;
- 79) Classification of craniofacial and neck cysts;
- 80) types of jaw cysts and soft tissues of the oral cavity, face and neck;
- 81) Dento- and non-dento-derived bone cysts of the craniofacial region;
- 82) Features of dentigerous and non-dentigerous cysts - diagnosis and treatment;
- 83) differentiation of cysts from other disease entities within the cavity mouth, face and neck;
- 84) Treatment methods, surgical management of soft tissue cysts of the craniofacial region and neck;
- 85) Surgical anatomy of the salivary glands;
- 86) Salivary gland diseases - clinical presentation, diagnosis, diagnosis, differentiation:
  - a) lithiasis and salivary gland inflammation (specific: radiculosis, tuberculosis, syphilis and non-specific: acute, acute secondary, chronic),
  - b) sialopathies - diseases with an autoimmune basis (Sjögren's, Mikulicz's, Heerfordt's syndrome);
- 87) salivary gland tumours:
  - a) Benign tumours: adenoma, oncocytoma, Warthin tumour, others,
  - b) Semi-malignant/locally malignant tumours -granuloma multiforme (mixed tumour),
  - c) Malignant tumours: adenocarcinoma, squamous cell carcinoma,

- anaplastic carcinoma, adenocarcinoma, mucoepidermoid carcinoma,  
sarcoma,
- d) clinical examination, radiological examinations, RM,

- e) Treatment of salivary gland tumours, tactics of surgical management;
- 88) aetiopathogenesis, diagnosis and differentiation of specific inflammations and non-specific soft and hard tissues of the craniofacial part and additional research;
- 89) directions of spread and surgical treatment of craniofacial and neck abscesses and abscesses;
- 90) Febrile conditions, aetiology, diagnosis, treatment;
- 91) principles of prophylactic and curative antibiotic therapy;
- 92) diabetes in surgical diseases;
- 93) HBV (Hepatitis B Virus) and HCV (Hepatitis C Virus) infections and HIV (Human Immunodeficiency Virus) - prevention, treatment, post-exposure management;
- 94) principles of medical practice based on evidence-based medicine (EBM);
- 95) fundamentals of pharmacoeconomics;
- 96) historical outline of maxillofacial surgery as a branch of general surgery;
- 97) principles of prevention and control of nosocomial infections and rational antibiotic therapy.

### **III. PRACTICAL SKILLS REQUIRED**

***It is expected that the dental practitioner, on completion of specialty training in the field of maxillo-facial surgery will demonstrate the ability to:***

- 1) the management of sudden cardiac arrest, the performance of defibrillation;
- 2) management of acute upper airway obstruction (oro-tracheal intubation, nasotracheal intubation, tracheotomy, conicopuncture, conicotomy);
- 3) performing chest compressions and mechanical ventilation in CPR (cardiopulmonary resuscitation);
- 4) conducting oxygen therapy;
- 5) shock management;
- 6) management of acute post-traumatic upper respiratory tract bleeding;
- 7) management of fractures with intrusion of cranial vault bones;
- 8) management of intracranial haematomas;

- 9) management of thoracic injuries, rib fracture;
- 10) pleural puncture, drainage;
- 11) to perform superficial, intrathecal, regional and lower lumbar anaesthesia;
- 12) incision and drainage of extraoral and intraoral abscesses;
- 13) conservative orthopaedic treatment of jaw fractures;
- 14) performing stable osteosynthesis in the treatment of jaw fractures;
- 15) surgical treatment of skeletal fractures of the craniofacial region;
- 16) conservative and surgical treatment of mandibular condylar process fractures;
- 17) orbital reconstruction with grafts or implants;
- 18) surgical treatment of lip cancer with reconstruction;
- 19) maxillary resections due to tumours and other pathologies;
- 20) mandibular resection;
- 21) performing elective surgery on the lymphatic system of the neck;
- 22) Removal of cervical lymph nodes in the treatment of malignant tumours - complex surgery of the neck lymphatic system including Jawdynski and Crile;
- 23) surgical treatment of salivary gland tumours;
- 24) surgical treatment of craniomaxillofacial morphological defects;
- 25) to carry out reconstructive procedures for post-splint defects;
- 26) surgical treatment of temporomandibular joint ankylosis;
- 27) treatment of temporomandibular joint dysfunction;
- 28) surgical treatment of jaw and oral cysts;
- 29) surgical treatment of cysts and fistulas of the neck;
- 30) Mandibular reconstruction using autogenous grafts or implants;
- 31) Reconstruction of oral and facial soft tissues by means of local plasty, skin grafts and dermal and dermal-muscular flaps and carried on microvascular anastomoses;
- 32) surgical treatment of diseases of the maxillary sinuses;
- 33) surgical treatment of abscesses and abscesses;
- 34) performing surgical and reconstructive procedures in preparation of the oral cavity for prosthetics;
- 35) surgical treatment of periodontal disease;
- 36) implant placement;
- 37) diagnosis and treatment of true trigeminal neuralgia;

- 38) The use of surgical laser, cryosurgery and piezosurgery in maxillofacial surgery;
- 39) to perform a compatibility test prior to transfusion of blood and blood components and its interpreted;
- 40) transfusion of blood and blood components and blood products;
- 41) tests of visual acuity, visual field, double vision and their assessment;
- 42) recognition of types of pain, clinical assessment of pain severity and principles of pain management.

## IV. FORMS AND METHODS OF EDUCATION

### A - Specialisation courses

**Note:** The dentist will only receive credit for those courses included in the list of specialisation courses maintained by the CMKP and published annually on the CMKP website: [www.cmkp.edu.pl](http://www.cmkp.edu.pl).

The duration of the courses is specified in teaching days and teaching hours, with one teaching hour = 45 minutes. The total duration of individual teaching activities during one course day must not exceed 8 teaching hours.

Selected specialisation courses may be delivered via e-learning. Specialisation courses included in the specialisation programme are delivered on working days.

#### 1. Introductory course: "Introduction to specialization in maxillofacial surgery".

##### **Course objective:**

Gain knowledge of the basic areas of action in maxillofacial surgery and the basics of diagnosis and treatment of patients with conditions of the maxillofacial area and adjacent areas, including the most common surgical techniques used in maxillofacial surgery. **Scope of knowledge:**

- 1) introduction to the problems, objectives and field of action in maxillo-facial surgery;
- 2) tasks, competencies and expected outcomes of the training of a specialist in the field of

- maxillo-facial surgery;
- 3) the fundamentals of good medical practice, including the principles of practice based on evidence-based medicine (EBM);
  - 4) Formal and legal bases for the continuing professional development of doctors and dentists;
  - 5) fundamentals of oncology;
  - 6) safety issues in healthcare concerning patient and doctor safety;
  - 7) Maxillofacial surgery as a branch of general surgery - a historical overview;
  - 8) Surgical suturing, types of sutures, soft tissue healing;
  - 9) Stable osteosynthesis of bone fragments, biology of fracture healing;
  - 10) surgical approaches used in maxillofacial surgery;
  - 11) diagnostic and therapeutic possibilities and fundamentals of surgical techniques used in maxillo-facial surgery;
  - 12) introduction to the subjects covered in the specialisation programme in maxillo-facial surgery;
  - 13) fundamentals of pharmacoeconomics.

**Course duration:** 3 days (24 didactic hours) in the first year of specialty training.

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and course credit a test on the knowledge covered in the course programme.

## **2. Course: "Recognition, differentiation and treatment of specific and non-specific inflammations of soft and hard tissues of the craniofacial region and neck, spreading directions and principles of treatment of craniofacial abscesses and abscesses".**

### **Course objective:**

to acquire a detailed knowledge of the epidemiology, aetiopathogenesis, diagnosis, differentiation, complications and treatment of inflammation of the maxillo-facial region and adjacent areas with particular reference to dental causes.

**Scope of knowledge:**

- 1) Aetiopathogenesis of specific and non-specific inflammation of the soft and hard tissues of the craniofacial region;
- 2) directions and pathways for the spread of inflammation;
- 3) diagnosis and differentiation of specific and non-specific inflammations, tests additional;
- 4) surgical treatment, with particular emphasis on abscesses and abscesses of the craniofacial region.
- 5) Pharmacological treatment of specific and non-specific inflammation of the soft and hard tissues of the craniofacial region;
- 6) Local and systemic complications of inflammatory conditions of the maxillofacial area with particular emphasis on dental causes.

**Course duration:** 3 days (24 teaching hours).

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and course credit a test on the knowledge covered in the course programme.

### **3. Course: 'Diseases of the maxillary sinuses - their diagnosis, differentiation and treatment'**

**Course objective:**

to acquire detailed expertise in the epidemiology, aetiopathogenesis, diagnosis, differentiation, complications and treatment of maxillary sinus disorders.

**Scope of knowledge:**

- 1) Surgical anatomy, function and physiology of the paranasal sinuses;
- 2) Epidemiology, divisions, aetiopathogenesis and complications of maxillary sinusitis;
- 3) Dentigerous sinusitis - causes, complications, treatment
- 4) Oropharyngeal fusion and fistula - definition, epidemiology, aetiology, diagnosis and treatment;

- 5) Tumours of the maxillary sinuses - epidemiology, division, diagnosis, treatment, prognosis;
- 6) The usefulness of imaging studies in the diagnosis of maxillary sinus disease;
- 7) types of surgical procedures and techniques used to treat patients with sinus conditions.

**Course duration:** 3 days (24 teaching hours).

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and course credit a test on the knowledge covered in the course programme.

#### **4. Course: 'Cysts of the maxillofacial region and neck.**

##### **Etiopathogenesis, diagnosis, differentiation, treatment".**

**Course objective:**

to acquire detailed expertise in the epidemiology, aetiopathogenesis, diagnosis and treatment and recurrence of specific types of bone and soft tissue cysts of the maxillofacial and neck area.

**Scope of knowledge:**

- 1) introduction, definitions of cyst, true cyst, pseudocyst, aetiopathogenesis cysts;
- 2) Classifications of cysts of the maxillofacial region;
- 3) Maxillary bone cysts - types, aetiopathogenesis, localisation, clinical picture, imaging diagnosis, treatment, recurrence;
- 4) Maxillary sinus cysts - types, aetiopathogenesis, location, clinical picture, imaging diagnosis, treatment, recurrence;
- 5) Soft tissue cysts of the craniofacial region and neck - types, diagnosis, treatment methods, surgical management;
- 6) differentiation of cysts from other disease entities within the cavity mouth, face and neck.

**Course duration:** 2 days (16 teaching hours).

**Form of course delivery:** using distance learning methods and techniques or stationary.



**Form of course credit:** Confirmation of attendance and course credit  
a test on the knowledge covered in the course programme.

## **5. Course: 'Etiopathogenesis, diagnosis and treatment of temporomandibular joint disorders'.**

**Course objective:**

to acquire detailed expertise in the epidemiology, aetiopathogenesis, diagnosis and treatment of patients with temporomandibular joint disorders.

**Scope of knowledge:**

- 1) Introduction, surgical anatomy of the temporomandibular joint;
- 2) Aetiopathogenesis, epidemiology of temporomandibular joint diseases;
- 3) Imaging diagnosis of the temporomandibular joints;
- 4) clinical examination of patients with temporomandibular joint pathology;
- 5) Clinico-ethiopathological classification of temporomandibular joint disease;
- 6) patient consultations;
- 7) Psychological conditions in temporomandibular joint pathology;
- 8) conservative treatment of temporomandibular joint disorders;
- 9) Temporomandibular joint arthroscopy;
- 10) surgical treatment of temporomandibular joint disorders.

**Course duration:** 3 days (24 teaching hours).

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and course credit  
a test on the knowledge covered in the course programme.

## **6. Course: 'Potentially malignant disorders, features of benign and malignant neoplasms of the oral cavity and craniofacial region - their diagnosis and treatment'.**

### ***Course objective:***

to acquire detailed expertise in the epidemiology, aetiopathogenesis, diagnosis and treatment of potentially malignant disorders of the facial skin and oral mucosa and benign and malignant tumours of the face, mouth, jawbone and neck.

### ***Scope of knowledge:***

- 1) Potentially malignant disorders of the skin and mucous membranes - predisposing factors for oral and craniofacial cancers, types of potentially malignant disorders, diagnosis, clinical management;
- 2) the role of the GP and dentist in the early diagnosis and prevention of cancer;
- 3) division of benign and malignant tumours and their morphological and clinical features;
- 4) treatment of benign tumours of the face, mouth and neck;
- 5) dentigerous neoplasms and tumour-like lesions of the jawbone - aetiopathogenesis, epidemiology, classification, clinical characteristics and morphology, diagnosis and treatment, recurrence;
- 6) diagnosis and treatment of benign and malignant skin tumours;
- 7) Surgical management of malignant tumours of the oral cavity and craniofacial region;
- 8) Combined treatment of head and neck cancer - modalities, indications, contraindications, complications;
- 9) management of patients after surgery - early and late prosthetic rehabilitation, outpatient follow-up.

***Course duration:*** 2 days (16 teaching hours).

***Form of course delivery:*** using distance learning methods and techniques or stationary.

***Form of course credit:*** Confirmation of attendance and course credit a test on the knowledge covered in the course programme.

## **7. Course: 'Epidemiology, diagnosis and surgical and combined treatment of malignant tumours of the face, oral cavity, craniofacial region and neck'.**

### ***Course objective:***

to acquire detailed expertise in the epidemiology, aetiopathogenesis, diagnosis and treatment of patients with malignant tumours of the face, oral cavity, craniofacial part and neck.

### ***Scope of knowledge:***

- 1) epidemiology, aetiological factors, distribution and diagnosis and differentiation of head and neck cancers;
- 2) the role of the general practitioner and dentist in early diagnosis and prevention of cancer;
- 3) TNM classification;
- 4) morphological and clinical features of malignant tumours;
- 5) diagnosis and treatment of benign and malignant skin tumours;
- 6) Diagnostic imaging in the diagnosis of oral and craniofacial cancers;
- 7) Surgical management of malignant tumours of the oral cavity and craniofacial region, nodal surgery;
- 8) basics of reconstructive treatment in oncology patients, grafts, flaps, e including those carried on microvascular anastomoses,
- 9) Combined treatment of head and neck cancer - modalities, indications, contraindications, complications;
- 10) management of patients after surgery - early and late prosthetic rehabilitation and outpatient follow-up

***Course duration:*** 3 days (24 teaching hours).

***Form of course delivery:*** using distance learning methods and techniques or stationary.

***Form of course credit:*** Confirmation of attendance and course credit a test on the knowledge covered in the course programme.

## **8. Course: 'Fractures of the craniofacial skeleton - their diagnosis, classification and treatment'**

### **Course objective:**

To acquire detailed expertise in the epidemiology, aetiology and subdivisions of craniofacial fractures and their diagnosis and treatment. **Scope of knowledge:**

- 1) Surgical anatomy of the craniofacial skeleton;
- 2) Epidemiology and aetiology of craniofacial skeletal fractures;
- 3) Organisational, diagnostic and treatment problems in traumatology;
- 4) Complications and concomitant intracranial injuries after craniofacial skeletal trauma;
- 5) Imaging diagnosis of craniofacial skeletal fractures, standard examinations, CT, MRI, ultrasound;
- 6) Post-traumatic visual system damage in craniofacial skeletal fractures - diagnosis, differentiation, treatment, prognosis;
- 7) subdivisions of fractures of the craniofacial bones in conventional terms: fractures of the nose, orbit, zygomatic bone, maxillae, mandible, frontal sinuses,
- 8) Clinico-anatomopathological classification of craniofacial fractures;
- 9) surgical treatment of craniofacial skeletal fractures
- 10) Peculiarities of craniofacial skeletal fractures in children with diagnostic and therapeutic implications.

**Course duration:** 3 days (24 teaching hours).

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and course credit a test on the knowledge covered in the course programme.

## **9. Course: 'Orbital fractures - diagnosis, differentiation and treatment'.**

### **Course objective:**

to acquire detailed expertise in the epidemiology, aetiology, diagnosis and treatment of orbital fractures.

### **Scope of knowledge:**

- 1) Introduction, diagnostic and treatment problems in orbital fractures;

- 2) Epidemiology of orbital fractures;
- 3) Surgical anatomy of the craniofacial skeleton, with particular emphasis on the orbit;
- 4) Divisions of orbital fractures including clinico-anatomical classification of orbital fractures;
- 5) Ophthalmic examination and specialised assessment of damage to the visual system, orbital chart, classification of diplopia according to Krzystek;
- 6) Intracranial complications in orbital fractures;
- 7) Imaging diagnosis of orbital fractures;
- 8) treatment: ZJO, ZJSO, ZIDO;
- 9) treatment: DON, PGM, ZCON, ZCO.

**Course duration:** 3 days (24 teaching hours).

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and course credit a test on the knowledge covered in the course programme.

## **10. Course: 'Conservative and surgical treatment of mandibular condylar process fractures'.**

### **Course objective:**

to acquire detailed expertise in the epidemiology, aetiology, diagnosis and contemporary treatment of mandibular condylar process fractures.

### **Scope of knowledge:**

- 1) Introduction, epidemiology of mandibular condylar process fractures;
- 2) Mandibular surgical anatomy;
- 3) Fracture classifications, clinical presentation and complications;
- 4) Diagnosis and radiological assessment of mandibular condylar process fractures;
- 5) conservative orthopaedic treatment of mandibular condylar process fractures;
- 6) surgical treatment of mandibular condylar processes.

**Course duration:** 2 days (16 teaching hours).

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and course credit  
a test on the knowledge covered in the course programme.

**11. Course: 'Etiopathogenesis, morphology, diagnosis, differentiation and surgical treatment of congenital and acquired maxillofacial malformations'.**

**Course objective:**

to acquire detailed expertise in the epidemiology, aetiopathogenesis, diagnosis and syndromic treatment of patients with maxillofacial malformations.

**Scope of knowledge:**

- 1) basics of head and neck embryology;
- 2) Aetiopathogenesis of facial and oral malformations, their division, diagnosis;
- 3) clefts of the face and mouth;
- 4) Complex craniofacial malformations (e.g. Crouzon, Apert, Pierre Robin, Mobius, Caffey-Silverman, Parry-Romberg syndrome);
- 5) malformations of the facial bones (micro- and retrognathia, macro- and microgenia, retrogenia, laterogenia, etc.);
- 6) Principles of team treatment of malformations and orthodontic-surgical cooperation;
- 7) basic surgical techniques in orthognathic surgery.

**Course duration:** 3 days (24 teaching hours).

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and course credit  
a test on the knowledge covered in the course programme.

**12. Course: 'Diseases of the salivary glands - diagnosis, differentiation, treatment'**

**Course objective:**

acquiring specific expertise in epidemiology,

Aetiopathogenesis, diagnosis, differentiation and treatment of salivary gland disorders.

**Scope of knowledge:**

- 1) Surgical anatomy of the salivary glands;
- 2) diagnosis of salivary gland diseases;
- 3) Salivary gland diseases, clinical picture, diagnosis, differentiation:
  - a) lithiasis and salivary gland inflammations (specific: radiculosis, tuberculosis, syphilis and non-specific: acute, acute secondary, chronic),
  - b) sialopathies - autoimmune diseases (Sjögren's syndrome, Mikulicz syndrome, Heerfordt syndrome, IgG4-dependent disease),
  - c) salivary gland tumours:
    - benign tumours: adenoma, oncocytoma, Warthin's tumour, others,
    - semi-malignant/ locally malignant tumours - adenocarcinoma multiforme (mixed tumour),
    - malignant tumours: adenocarcinoma, squamous cell carcinoma, anaplastic carcinoma, adenocarcinoma (obloma), mucinous epithelial carcinoma (Stewart's tumour), sarcoma,
    - treatment of salivary gland tumours - tactics of surgical management;
- 4) Diagnostic imaging in salivary gland disorders ;
- 5) surgical treatment of benign and malignant tumours, large and small salivary glands.

**Course duration:** 3 days (24 teaching hours).

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and course credit  
a test on the knowledge covered in the course programme.

### **13. Course: 'Transfusion of blood and blood components'.**

**Course objective:**

Gain knowledge and practical skills in the basics of transfusionology, including principles of blood service and blood bank organisation, blood collection and transfusion of blood and blood components. An introduction to rational blood and blood component therapy.

components. Learning about post-transfusion complications and adverse events and reactions.

**Scope of theoretical knowledge:**

- 1) principles of blood service organisation:
  - a) the organisational structure of the blood service in Poland,
  - b) legal basis of public blood units, hospital units  
blood banks, transfusion immunology laboratory,
  - c) the organisation of blood supply in health care providers, principles of cooperation with public blood units;
- 2) Tasks of the hospital blood bank and blood management in the hospital ward:
  - a) principles of the hospital blood bank,
  - b) the role and tasks of the doctor in charge of blood management,
  - c) role and tasks of the transfusion committee,
  - d) placing orders for blood and blood components,
  - e) hospital blood bank records,
  - f) documentation of blood donation in wards,
  - g) standard operating procedures;
- 3) principles for blood collection, separation of blood components, testing and distribution:
  - a) types of blood components,
  - b) methods of obtaining them,
  - c) quality control parameters,
  - d) specialised blood components: poor-leucocyte, irradiated,  
inactivated,
  - e) conditions and method of storage and transport of blood, with particular attention to ensuring appropriate safety;
- 4) rational treatment with blood and its components:
  - a) Transfusion-related aspects of anaemia treatment,
  - b) clinical indications for platelet cell concentrate transfusion,
  - c) clinical use of granulocyte concentrate,
  - d) indications for the use of fresh frozen plasma and cryoprecipitate,
  - e) indications for blood products: albumin, immunoglobulins, clotting factor concentrates;
- 5) therapeutic treatments:



- a) autotransfusion,
  - b) haemodilution,
  - c) discounts,
  - d) therapeutic apheresis;
- 6) Transfusion immunology:
- a) clinically important red cell group systems,
  - b) the concept of immune antibodies,
  - c) serological compatibility test,
  - d) documentation of research results,
  - e) scope of studies of the transfusion immunology laboratory,
  - f) principles for permanent documentation of blood group tests,
  - g) maternal-fetal conflict,
  - h) HLA and HPA;
- 7) safety of blood and its components:
- a) methods to prevent the transmission of pathogens by blood and blood components and blood products,
  - b) principles for the safe use of blood and blood components,
  - c) management prior to blood transfusion,
  - d) method of sampling for testing,
  - e) how to control blood intended for transfusion,
  - f) identification of the recipient,
  - g) performing a transfusion procedure,
  - h) observation of the patient during and after the transfusion,
  - i) documentation related to the transfusion procedure;
- 8) adverse events and reactions:
- a) serious adverse events and reactions,
  - b) types of post-transfusion complications: non-haemolytic post-transfusion reactions, haemolytic post-transfusion reactions,
  - c) how to deal with complications,
  - d) how to report reactions and adverse events and events that were detected before transfusion (*near-miss events*).

**Scope of practical skills:**

- 1) basic immunohaematology tests performed prior to blood transfusion:
  - a) blood group determination,
  - b) performing a serological compatibility test,
  - c) research documentation;
- 2) performing a blood transfusion procedure:
  - a) collection of blood samples for pre-transfusion testing,
  - b) handling containers containing blood and blood components,
  - c) identification of the recipient and control of the documentation,
  - d) performing a transfusion procedure,
  - e) observation of the patient during and after the transfusion;
- 3) post-transfusion management:
  - a) handling of post-transfusion residues,
  - b) taking samples for testing in case of post-transfusion complications,
  - c) reporting of adverse events and reactions.

**Course duration:** 2 days (16 teaching hours).

**Form of course delivery:** using distance learning methods and techniques and stationary.

**Form of assessment:** confirmation of attendance and a test of knowledge and practical skills covered by the course programme.

## **14. Course: 'Medical Jurisprudence'.**

**Course objective:**

the acquisition by doctors of theoretical and practical knowledge on how to properly formulate an opinion or judgment assessing a patient's state of health.

**Scope of knowledge:**

- 1) the basic principles of the health care system in Poland, including regulations for the medical profession;
- 2) social security system in case of sickness and its consequences implemented under: general social insurance

- employees, the self-employed and farmers, social provision, social assistance and the disability support system and employers;
- 3) the principles of medical certification, the principles for drawing up certificates, and the basic principles and objectives of health assessment for certification purposes;
  - 4) the specifics of the mutual relationship between the person examined and the medical examiner;
    - 5) principles of good medical record keeping and responsibility for running it illegally;
  - 6) Principles of medical legal liability (civil, criminal and professional), ability to compare, types of medical insurance;
  - 7) The responsibilities of doctors and healthcare providers. Fundamentals of labour law;
  - 8) the concept of medical error, the most common causes of medical errors and opinion rules in such cases;
  - 9) The nature, distribution and principles of forensic medical opinion concerning: fitness to participate in legal proceedings, impairment of health;
  - 10) The most important fields in which medical opinion is necessary and indispensable. Distinctions of opinion for, inter alia, psychiatry, labour law, commercial insurers;
  - 11) The importance and principles of therapeutic rehabilitation as part of disability prevention.

**Course duration:** 3 days (24 teaching hours).

**Form of course delivery:** using learning methods and techniques on distance or stationary.

**Form of course credit:** Confirmation of attendance and course credit a test on the knowledge covered by the course.

## **15. Course: 'Prevention and health promotion'.**

### **Course objective:**

Acquisition by doctors of theoretical and practical knowledge of the current rules for the prevention of diseases/health problems and health promotion - both for individuals (patients) and for the community, including the professional community.

The course is also premised on the formation of social competencies, including the promotion of self-reflection and critical thinking, as well as the development of collaboration for health. In addition, the course seeks to shape ethical attitudes, promote a 'pro-preventive' work culture in the health sector, as well as ongoing self-education for doctors to broaden and deepen their knowledge and skills related to the with prevention and health promotion.

**Scope of knowledge:**

**Part I. Scientific and ethical bases of prevention and health promotion:**

- 1) models of health, determinants of health and their modern quantification, health impact pyramid (according to Freiden 2015);
- 2) population health gradient, causes and so-called causes of causes, including public policies, approaches to address health inequalities/injustices, including so-called *group-gap-gradient*, proportional universalism;
- 3) basic definitions and objectives of disease prevention and health promotion, including health promotion according to the Ottawa Charter (WHO 1986), similarities and differences;
- 4) interpretations, approaches and prevention strategies:
  - a) individual in medical care, including lifestyle medicine, population-based in public health activities,
  - b) *primordial*, primary, secondary, tertiary, quaternary - applications,
  - c) high-risk, population-based - applications,
  - d) universal, selective, indicative - applications,
  - e) other prevention approaches and strategies - applications;
- 5) interpretations, approaches and strategies for health promotion:
  - a) WHO approach, including habitat, applications, e.g. health-promoting hospitals and medical facilities (including health promotion for health professionals), health-promoting schools, urban health,
  - b) other health promotion approaches and strategies used in healthcare providers:
    - four areas of physician activity in health promotion (according to Beattie 1991),

- medical, behavioural, educational, client-centred/empowerment, social change approaches (according to Ewles, Simnett 2003),
  - participation of doctors in addressing health inequalities/injustices,
  - the role of the doctor's attitudes in shaping the patient's pro-health behaviour;
- 6) activities in line with *Evidence Based Practice* principles (*policy/public health/disease prevention/health promotion/health education*), use of good practice databases;
  - 7) ethical principles in preventive activities and health promotion, adverse effects of preventive activities/health promotion;
  - 8) Current and desirable: structure and organisation of prevention and health promotion activities, staff competencies, economic aspects.

**Part II. General characteristics and effectiveness of selected methods of action in disease prevention and health promotion:**

- 1) life cycle of the vaccination programme, *hesitancy* towards vaccines (vaccine hesitancy), models of *hesitancy* determinants, including 3C, 4C, 5C, WHO's approach to counteracting *hesitancy* and increasing vaccination coverage (currently based on the COM-B model);
- 2) Mass (organised) screening, differences from diagnostic tests, implementation criteria, adverse effects, balance of benefits and losses;
- 3) Health education, patient education, counselling, *coaching*, similarities and differences, principles of practice;
- 4) Health communication through old and new media, opportunities and limitations, characteristics of correct health information, infodemia, fifth-order prevention, risk communication in crisis situations;
- 5) working with the community, including community organisation/mobilisation, processes, principles, approaches, *social prescribing*;
- 6) *Health in All Policies*, approaches including health advocacy, Health *Impact Assessment*;

- 7) Health programmes as a tool for implementing population-based disease prevention and health promotion, health needs assessment, planning schemes, behaviour change theories, programme monitoring and evaluation;
- 8) leadership in the health sector;
- 9) other current and important approaches (e.g. non-pharmaceutical interventions in relation to COVID-19).

**Part III. Applications of prevention and health promotion** (including recommendations, activities, methods, tools, materials, etc.) **to the practical control of diseases/health problems** (i.e. to reduce incidence, prevalence and mortality to a level that is, in the given context (time, place, conditions), acceptable using preventive and curative methods):

- 1) Dietary recommendations, improving nutrition, minimal intervention in obesity;
- 2) WHO physical activity level recommendations, increasing physical activity;
- 3) Mental health promotion, suicide prevention;
- 4) Tobacco prevention, including a minimum tobacco intervention strategy, harm reduction;
- 5) countering psychoactive substance use, including harm reduction strategies, and behavioural addictions;
- 6) prevention of falls in older people;
- 7) other current health-promoting recommendations in the context of disease risk factors or specific diseases/health problems (e.g. air pollution, climate change, the planetary diet model, *One Health*);
- 8) principles for the management of communicable disease outbreaks, the organisation of  
and functioning of health care, lessons from the COVID-19 pandemic.

**Course duration:** 2 days (16 teaching hours)

**Form of course delivery:** using distance learning methods and techniques or stationary.

**Form of course credit:** Confirmation of attendance and passing of a test on the knowledge covered in the course programme.

## **16. Attestation (summary) course: "Maxillofacial surgery".**

Before starting the attestation course programme, the course organiser shall be required to take a colloquium to test the knowledge acquired undergoing specialisation training. The scope of knowledge includes specialisation courses and placements completed throughout the specialisation training.

### ***Course objective:***

A review and systematisation of specialist knowledge in the field of maxillo-facial traumatology; oncology of the head and neck area including cysts of the maxillo-facial area and tumour-like lesions of the maxillary bones; developmental defects of the face and oral cavity; inflammatory conditions of the face, neck and adjacent areas with particular emphasis on dental causes; diseases of the maxillary sinuses; diseases of the salivary glands and temporomandibular joint pathology.

### ***Scope of knowledge:***

- 1) Maxillofacial traumatology: fractures of the mandible, maxillae, zygomatic-maxillary complex, orbit (epidemiology, classifications, diagnosis, diagnostic imaging, treatment, complications).
- 2) Head and neck oncology: potentially malignant disorders of the skin and mucous membranes, tumours of the face, mouth, jawbone and neck, cysts and dentigerous tumours (epidemiology, classifications, diagnosis, imaging diagnosis, treatment, prognosis, prevention).
- 3) Developmental malformations of the face and oral cavity: facial and oral clefts, gnathic malformations (prognathia, retrognathia, retrogenia, laterogenia, open bite), malformation syndromes (epidemiology, diagnosis, classifications, diagnosis, syndromic treatment).
- 4) inflammatory conditions of the face and neck and adjacent areas: specific and non-specific inflammations, extra- and intraoral abscesses, abscesses, hidradenitis suppurativa, facial boils, lymphadenitis, mycoses (epidemiology, aetiology, diagnosis, microbiological diagnosis, treatment, local and systemic complications).
- 5) Maxillary sinus diseases: acute and chronic inflammation, abscess, sinus mycosis, oro-sinus fusion and fistula (epidemiology, aetiology, diagnosis, diagnosis, treatment, complications).

- 6) salivary gland diseases: sialolithiasis, specific and non-specific inflammations, sialoses and sialopathies, salivary gland tumours (epidemiology, aetiology, diagnosis, diagnosis, treatment, prognosis, prevention).
- 7) Temporomandibular joint diseases: epidemiology, aetiology, classifications, diagnosis, diagnosis, conservative, minimally invasive and surgical treatment.

**Course duration:** 5 days (40 didactic hours) in the last year of specialty training before taking the PES.

**Form of course delivery:** using distance learning methods and techniques and stationary.

**Form of assessment:** acknowledgement of attendance and a test on the knowledge covered in the attestation course.

## **B - Directional traineeships**

The dentist is required to complete the internships listed below. The duration of the internship is given in weeks and working days at a working time of 7 hours 35 minutes per day. The internship must be extended by each day of absence, including public holidays for the year.

### **1. Basic training in maxillo-facial surgery**

**Internship objective:**

Acquisition of specialist knowledge and practical skills in the diagnosis and treatment, including surgical treatment, of patients: after craniofacial trauma; with oncological conditions of the face, oral cavity, maxillary bones and neck; with developmental defects of the face and oral cavity, with diseases of the salivary glands, with pathology of the temporomandibular joints; with specific inflammations of the face, oral cavity and neck and their complications; with diseases of the maxillary sinuses.

**Scope of theoretical knowledge:**

*It is expected that the dentist, on completion of the internship, will have acquired knowledge of:*

- 1) preparation of the patient for surgical treatment and postoperative care;
- 2) modern diagnosis of brain and craniofacial injuries;
- 3) methods of treating fractures of the craniofacial bones, in particular:



- a) stable osteosynthesis,
- b) surgical treatment of jaw fractures,
- c) surgical treatment of zygomatic-maxillary-orbital fractures,
- d) orbital reconstruction with grafts or implants;
- 4) treatment of benign tumours and tumour-like tumours of the craniofacial region and neck;
- 5) diagnosis of cancers of the mouth, jaws, face and neck:
  - a) excision, fine-needle aspiration biopsy (BAC - fine-needle aspiration biopsy, BACC - targeted fine-needle aspiration biopsy), coarse-needle biopsy,,
  - b) imaging diagnostics: conventional radiology, CT, RM, PET-CT, SPECT (single photon emission tomography), scintigraphy, ultrasound, angiography,
- 6) team treatment of malignant tumours of the craniofacial region (surgery, radiotherapy, brachytherapy, chemotherapy, chemoradiotherapy, immunotherapy);
- 7) diagnosis and planning of surgical treatment of congenital and acquired maxillofacial malformations;
- 8) management of congenital or acquired deformities of the craniofacial skeleton by means of distractors;
- 9) treatment of stiffness and temporomandibular joint dysfunction;
- 10) reconstructions after extensive craniofacial defects including flaps carried at microvascular junctions;
- 11) etiopathogenesis and surgical treatment of cysts, fistulas and defects development of the craniofacial region and neck;
- 12) diagnosis and treatment of diseases of the salivary glands;
- 13) directions of spread and treatment of abscesses and abscesses of the craniofacial region and neck including their local and systemic complications.

***Scope of practical skills:***

the dentist is expected to have acquired the practical skills for the basic internship included in point **C - Training in the skills of performing medical procedures and treatments** in the table on the list of

and the number of treatments and medical procedures which the doctor must undergo in the course of that placement

***Form of credit for internship (with the head of specialisation):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the head of specialisation of the medical procedures or treatments performed by the doctor included in the training programme.

***Duration of internship:*** 155 weeks (775 working days).

***Place of internship:*** department of maxillo-facial surgery which is accredited to provide specialty training in maxillo-facial surgery.

***Place of duty:*** oral and maxillofacial surgery department, which is the site of the basic internship.

## **2. General surgical internship**

***Internship objective:***

Acquire specialist knowledge and practical skills in the diagnosis and treatment of: wound healing abnormalities; septic and haemorrhagic shock; upper and lower gastrointestinal bleeding;

"acute abdomen", water-electrolyte disorders and assimilation of the principles of enteral nutrition with industrial diet and parenteral nutrition treatment.

***Scope of theoretical knowledge:***

*It is expected that the dentist, on completion of the internship, will have acquired knowledge of:*

- 1) The pathophysiology of healing and treatment of clean and infected wounds;
- 2) management of purulent infections;
- 3) pathology, diagnosis and treatment of traumatic, haemorrhagic, burn and septic shock;
- 4) interpretation of laboratory results;
- 5) indications and contraindications for elective and emergency surgery, preparation of the patient for surgery and anaesthesia, and surgical risk assessment;

- 6) postoperative management, prevention, recognition and treatment of postoperative complications;
- 7) pathogenesis, diagnosis, differentiation, treatment and prognosis of acute and chronic abdominal surgical diseases;
- 8) recognition, management tactics for multiple injuries;
- 9) protein, carbohydrate, water-electrolyte and acid-base disorders;
- 10) the pathogenesis, diagnosis, differentiation and treatment of haemorrhages and the determination of indications for surgical and conservative treatment in haemorrhages;
- 11) causes, recognition, diagnosis and management of bleeding disorders from the gastrointestinal tract;
- 12) extra- and enteral feeding;
- 13) pathogenesis, diagnosis, treatment and prognosis of burn disease;
- 14) Pathogenesis, prevention and treatment of renal failure in surgery;
- 15) pathogenesis, diagnosis and treatment options for coagulation disorders;
- 16) prophylactic anticoagulant management;
- 17) diagnosis and treatment of thromboembolism.

***Scope of practical skills:***

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

***Duration of internship:*** 10 weeks (50 working days).

***Place of internship:*** department of general surgery which is accredited to provide specialty training in general surgery or the above-mentioned internship.

***Location of on-call duty:*** at the place of training or basic.

### **3. Vascular surgery internship**

#### ***Internship objective:***

Acquire specialist knowledge and practical skills in the diagnosis and treatment of: acute and chronic venous disease; arterial injury and blockages; and diabetic foot syndrome and phlebitis.

#### ***Scope of theoretical knowledge:***

*The dentist is expected to acquire knowledge of:*

- 1) epidemiology and pathophysiology of acute and chronic vascular diseases;
- 2) invasive and non-invasive diagnosis of peripheral vascular disease;
- 3) diagnosis and treatment of arterial blockages;
- 4) diagnosis and treatment of arterial injuries;
- 5) diagnosis and treatment of diabetic foot syndrome;
- 6) diagnosis and treatment of lower limb varicose veins;
- 7) diagnosis and treatment of superficial phlebitis.

#### ***Scope of practical skills:***

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

#### ***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

***Duration of internship:*** 2 weeks (10 working days).

***Place of internship:*** department of vascular surgery which is accredited to provide specialty training in vascular surgery or the above internship.

***Location of the on-call medical service:*** at the place of training or basic training.

#### **4. General internship in thoracic surgery**

##### ***Internship objective:***

Acquisition of specialist knowledge and practical skills in the diagnosis and treatment of: thoracic emergencies (emphysema); thoracic trauma and tracheal stenosis.

##### ***Scope of theoretical knowledge:***

*It is expected that the dentist, on completion of the internship, will have acquired knowledge of:*

- 1) topographical anatomy of the thoracic structure and the position of important organs in the thorax, including pathology:
  - a) the structure of the trachea, bronchi, lungs and pleura,
  - b) mediastinal anatomy with the position of organs, i.e. aorta, superior vena cava, oesophagus;
- 2) basic assessment of radiological examinations, i.e. chest X-ray in the A-P and lateral projection;
- 3) chest CT assessment;
- 4) determination of pneumothorax and pleural fluid;
- 5) Primary bronchoscopy - assessment of the bronchial tree with evaluation of emergencies, i.e. bronchial tree trauma;
- 6) gastroesophagoscopy (e.g. assessment of oesophageal perforation);
- 7) sudden onset chest diseases, i.e. pneumothorax, pneumothorax, haemothorax, iatrogenic emphysema (diagnosis, treatment);
- 8) Thoracic injuries and their treatment (penetrating injuries, haematomas and haemorrhages into the pleural cavity, post-traumatic emphysema);
- 9) Pointubative tracheal stenosis (causes, diagnosis, treatment).

##### ***Scope of practical skills:***

it is expected that the dental practitioner will acquire the practical skills for the above-mentioned training placement included in point **C - Training** in the **skills of performing medical procedures and procedures in the** table concerning the list and number of medical procedures and procedures to be performed by the medical practitioner in the course of this training placement.

##### ***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;

- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

**Duration of internship:** 2 weeks (10 working days).

**Place of internship:** department of thoracic surgery which is accredited to conduct specialty training in thoracic surgery or the above internship.

**Location of on-call duty:** at the place of training or basic.

## **5. Internship in orthopaedics and traumatology of the musculoskeletal system**

### **Internship objective:**

to acquire specialist knowledge and practical skills in the diagnosis and treatment of traumatic injuries of the musculoskeletal system, including the spine, and their early and late complications.

### **Scope of theoretical knowledge:**

*The dentist is expected to acquire knowledge of:*

- 1) Fundamentals of physiology, physiopathology and biomechanics of the musculoskeletal system, physiology and disorders of bone fusion, physiology and pathology of articular cartilage, biomaterials;
- 2) clinical examination of the musculoskeletal system and imaging methods in the diagnosis of diseases and post-traumatic lesions of the musculoskeletal system;
- 3) basics of pathomechanics, diagnosis, differentiation, knowledge of complications, prognosis and modern treatment of traumatic injuries of the musculoskeletal system;
- 4) basics of diagnosis, prognosis, treatment in traumatic spinal injuries with spinal cord injuries;
- 5) recognising and treating complications in the healing of bone fractures and joint dislocations,
- 6) injury prevention.

### **Scope of practical skills:**

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical**

**procedures and treatments** in the table concerning the list of  
and the number of treatments and medical procedures that apply to the doctor in the  
course of this internship.

***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

***Duration of internship:*** 4 weeks (20 working days).

***Place of internship:*** department of orthopaedics and traumatology of the musculoskeletal system which is accredited to conduct specialised training in orthopaedics and traumatology of the musculoskeletal system or the above mentioned internship.

***Location of on-call duty:*** at the place of training or basic.

## **6. Otorhinolaryngology internship**

***Internship objective:***

Acquisition of specialist knowledge and practical skills in the diagnosis and treatment of: tumours of the pharynx and larynx, peri-tonsillar abscesses and inflammatory conditions of the paranasal sinuses.

***Scope of theoretical knowledge:***

*It is expected that the dental practitioner will, during his/her internship, acquire knowledge of:*

- 1) Cancer of the larynx and pharynx - diagnosis, differentiation, treatment;
- 2) diagnosis, differentiation and treatment of peri-tonsillar abscesses;
- 3) sinusitis - the oropharyngeal complex.

***Scope of practical skills:***

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the



internship programme.

**Duration of internship:** 2 weeks (10 working days).

**Place of internship:** department of otorhinolaryngology which is accredited to conduct specialty training in otorhinolaryngology or the above internship.

**Location of on-call duty:** at the place of training or basic.

## 7. Plastic surgery internship

### **Internship objective:**

to acquire specialist knowledge and practical skills in the diagnosis and treatment of pressure sores, burn disease, qualification principles and methods used today in reconstructive surgery and in cleft patients.

### **Scope of theoretical knowledge:**

*The dentist is expected to acquire knowledge of:*

- 1) anatomy and histology of the skin and subcutaneous tissue, indications, surgical technique and postoperative management in the use of full and intermediate thickness skin grafts;
- 2) complex tissue grafts and grafts of fascia, tendons, cartilage, bone, mucosa and nerves;
- 3) anatomy and preparation of the most commonly used skin, muscle and composite flaps;
- 4) conservative and surgical treatment of hypertrophic scars, scar contractures and keloids;
- 5) pathophysiology and treatment of pressure sores;
- 6) epidemiology, classification, diagnosis and prevention of burns and medical assistance in burns;
- 7) symptoms and treatment of upper respiratory tract burns;
- 8) procedures that change the shape of the cartilaginous part of the nose, principles of surgical correction of the humped and crooked nose;
- 9) corrective surgery of the nasal septum and typical nasal malformations;

- 10) the surgical anatomy of the palate and the aetiology and classification of clefts of the upper lip and palate and concomitant defects and syndromes with a cleft.

**Scope of practical skills:**

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

**Form of credit for internship (with the internship supervisor):**

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

**Duration of internship:** 6 weeks (30 working days).

**Place of internship:** department of plastic surgery which is accredited to provide specialty training in plastic surgery or the above internship.

**Location of on-call duty:** at the place of training or basic.

## 8. Internship in neurosurgery

**Internship objective:**

acquire specialist knowledge and practical skills in the diagnosis and treatment of patients following craniocerebral trauma, patients with intracranial haematoma, cerebral hemorrhage and intracranial compartment syndrome.

**Scope of theoretical knowledge:**

*It is expected that the dental practitioner will, during his/her internship, acquire knowledge in:*

- 1) neurological examination, Glasgow Coma Scale;
- 2) pharmacological treatment of the patient after craniocerebral trauma;
- 3) qualification for conservative or surgical treatment of the patient with intracranial haematoma;

- 4) postoperative pharmacological treatment, including the management of increased intracranial pressure syndrome;
- 5) recognition of nasal fluid.

**Scope of practical skills:**

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

**Form of credit for internship (with the internship supervisor):**

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

**Duration of internship:** 6 weeks (30 working days).

**Place of internship:** department of neurosurgery which is accredited to conduct specialised training in neurosurgery or the above internship.

**Location of on-call duty:** at the place of training or basic training.

## **9. Pediatric surgical internship**

**Internship objective:**

to acquire specialist knowledge and practical skills in the diagnosis and treatment of conditions of developmental age, taking into account their specificities and peculiarities, especially in the field of trauma surgery, burns and acute abdominal syndromes, as well as developmental defects.

**Scope of theoretical knowledge:**

*It is expected that during the internship the dentist will acquire knowledge of:*

- 1) the peculiarities of neonatal and young child physiology;
- 2) diagnosis and diagnosis of congenital malformations;
- 3) basics of neonatal surgery;
- 4) Fundamentals of paediatric traumatology, with a particular focus on multi-organ trauma and craniocerebral trauma;

- 5) basics of diagnosis and treatment of acute abdominal syndromes, especially intussusception and appendicitis;
- 6) treatment of burns.

***Scope of practical skills:***

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

***Duration of internship:*** 2 weeks (10 working days).

***Place of internship:*** department of paediatric surgery which is accredited to provide specialty training in paediatric surgery or the above internship.

***Location of on-call duty:*** at the place of training or basic.

## **10. Internship in ophthalmology**

***Internship objective:***

Acquisition of specialist knowledge and practical skills in the diagnosis and treatment of post-traumatic damage to the eyeball and ocular protective apparatus, exophthalmos and learning the indications and technique of eyeball enucleation surgery.

***Scope of theoretical knowledge:***

*It is expected that the dental practitioner will, during his/her internship, acquire knowledge in:*

- 1) post-traumatic damage to the eyeball, eyelids, lacrimal ducts - examinations diagnostic, proceedings;
- 2) causes of exophthalmos - recognition, management;
- 3) Ocular enucleation - indications, technique.

***Scope of practical skills:***

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

***Duration of internship:*** 2 weeks (10 working days).

***Place of internship:*** department of ophthalmology which is accredited to conduct specialty training in ophthalmology or the above internship.

***Location of on-call duty:*** at the place of training or basic.

## **11. Internship in anaesthesiology and intensive care**

***Internship objective:***

Acquisition of specialist knowledge and practical skills in intubation, cardiopulmonary resuscitation, management of basic systemic health emergencies, shock and assimilation of contemporary standards in postoperative and cancer pain management.

***Scope of theoretical knowledge:***

*The dentist is expected to acquire knowledge of:*

- 1) ILS (Immediate Life Support) respiratory and circulatory resuscitation procedures;
- 2) principles of emergency management of systemic health emergencies;
- 3) emergency management of multiple organ injuries;
- 4) principles of postoperative and cancer pain relief;
- 5) shock management;
- 6) principles of post-operative care.

***Scope of practical skills:***

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

***Duration of internship:*** 6 weeks (30 working days).

***Place of internship:*** department of anaesthesiology and intensive care which is accredited to conduct specialised training in anaesthesiology and intensive care or the above internship.

***Location of on-call duty:*** at the place of training or basic.

## **12. Internship in internal medicine**

***Internship objective:***

acquire specialist knowledge and practical skills in the diagnosis and treatment of: acute and chronic respiratory failure, myocardial infarction, SCA (sudden cardiac arrest), hypertension, shock, pulmonary oedema, acute and chronic renal failure, diabetes, endocrinopathies, myeloproliferative syndromes, water-electrolyte disorders and coagulopathies.

***Scope of theoretical knowledge:***

*The dentist is expected to acquire knowledge of:*

- 1) acute and chronic respiratory failure;
- 2) acute and chronic circulatory failure;
- 3) differential diagnosis of coma states;
- 4) Myocardial infarction - recognition, management;
- 5) sudden cardiac arrest;
- 6) shock;

- 7) pulmonary oedema;
- 8) acute and chronic renal failure;
- 9) coagulation disorders: plasma and vascular blemishes and disease thromboembolism;
- 10) hypertension, management;
- 11) diabetes and other metabolic diseases;
- 12) endocrinopathies, with particular emphasis on thyroid diseases, including thyroid orbitopathy;
- 13) pneumonia;
- 14) HBV and HCV infection, prevention, treatment;
- 15) disorders of acid-base balance and water-electrolyte balance;
- 16) acute renal failure;
- 17) lymphoproliferative syndromes (malignant granulomatosis, chronic lymphocytic leukaemia, malignant lymphomas);
- 18) chronic myeloid leukaemia;
- 19) the principles of parenteral nutrition.

***Scope of practical skills:***

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

***Duration of internship:*** 6 weeks (30 working days).

***Place of internship:*** department of internal medicine which is accredited to conduct specialised training in internal medicine or the above internship.

***Location of on-call duty:*** at the place of training or basic.



### **13. Clinical oncology internship**

#### ***Internship objective:***

Acquisition of specialist knowledge and practical skills in the diagnosis and treatment of cancers of the face, oral cavity and neck and the indications for neoadjuvant chemotherapy and chemoradiotherapy and their complications. **Scope**

#### ***of theoretical knowledge:***

*The dentist is expected to acquire knowledge of:*

- 1) basics and methods of diagnosing early forms of cancer in the oral cavity, face and neck;
- 2) modern methods of treatment of malignant tumours of the oral cavity, face and neck and particularly surgical, chemotherapeutic and radiotherapeutic methods;
- 3) qualifying patients for the appropriate therapeutic method and technique;
- 4) assessment of the clinical stage (TNN) and malignancy of the tumour;
- 5) prediction of complications, metastases, prognosis;
- 6) malignant skin tumours of the face (basal cell carcinoma, melanoma).

#### ***Scope of practical skills:***

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

During the internship, the dentist is required to independently perform and participate (assist) in the performance of the following clinical procedures and examinations:

- 1) Clinical and radiological diagnosis of tumours in the oral cavity, facial bones and jaws;
- 2) taking sections for histopathological examination;
- 3) follow-up examinations of patients after oncological treatment.

#### ***Form of credit for internship (with the internship supervisor):***

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

**Duration of internship:** 2 weeks (10 working days).

**Place of internship:** department of clinical oncology which is accredited to conduct specialised training in clinical oncology or the above internship.

**Location of on-call duty:** at the place of training or basic.

#### **14. Internship in radiology and diagnostic imaging**

**Internship objective:**

Acquisition of specialist knowledge and practical skills in the evaluation of conventional craniofacial radiographs, CT, RM and PET-CT in trauma, oncology, inflammatory patients and developmental defects of the face, mouth and neck.

**Scope of theoretical knowledge:**

*The dentist is expected to acquire knowledge of:*

- 1) physical and technical basis of conventional radiology, CT, MRI, nuclear medicine including PET;
- 2) evaluation of conventional craniofacial radiographs, CT, MRI and PET-CT and ultrasound  
in trauma patients, oncology patients, patients with inflammatory conditions and malformations of the face, mouth and neck.

**Scope of practical skills:**

it is expected that the dental practitioner will acquire the practical skills for the above-mentioned training placement included in point **C - Training of skills in performing medical procedures and treatments in the** table concerning the list and number of medical procedures and treatments which the doctor is obliged to **perform in the course of** this training placement.

**Form of credit for internship (with the internship supervisor):**

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

**Duration of internship:** 2 weeks (10 working days).

**Place of internship:** unit accredited to provide specialised training in radiology and diagnostic imaging or the above-mentioned internship. **Place of on-call duty:** at the place of training or basic training.

## 15. Internship in radiation oncology

### **Internship objective:**

to acquire expertise in the indications, planning and qualification for radical and adjuvant treatment of cancer with radiotherapy and local and systemic complications.

### **Scope of theoretical knowledge:**

*The dentist is expected to acquire knowledge of:*

- 1) indications and contraindications for treatment with radical radiotherapy of tumours of the face, oral cavity, jawbone and neck, depending on the type of tumour, its location and stage;
- 2) indications and contraindications for complementary radiotherapy after surgical treatment of tumours of the face, mouth and neck;
- 3) indications for palliative radiotherapy;
- 4) irradiation methods and techniques, including IMRT (Intensity-Modulated Radiation Therapy), VMAT (Volumetric Modulated Arc Therapy);
- 5) indications and contraindications for brachytherapy treatment in head and neck oncology;
- 6) diagnosis and treatment of radiation reactions;
- 7) Radiotherapy treatment planning (field, dose, hypo- and hyperfractionation, boost, protection of critical organs).

### **Scope of practical skills:**

the dental practitioner is expected to acquire the practical skills for the aforementioned training course included in point **C - Training** in the **skills of performing medical procedures and treatments** in the table concerning the list of and the number of treatments and medical procedures that apply to the doctor in the course of this internship.

During the internship, the dentist should independently perform and participate (assist) in the performance of the following clinical procedures and examinations:

- 1) participating in the cancer diagnosis process;

- 2) taking sections for histopathological examination;
- 3) participating in the planning of radiotherapy treatment;
- 4) Participating in follow-up examinations of patients after oncological operations and irradiation.

**Form of credit for internship (with the internship supervisor):**

- 1) a colloquium on the theoretical knowledge covered in the internship programme;
- 2) practical skills test - confirmation by the internship supervisor of the medical treatments or procedures performed by the doctor and included in the internship programme.

**Duration of internship:** 4 weeks (20 working days).

**Place of internship:** department/facility which is accredited to provide specialty training in radiation oncology or the above internship.

**Location of on-call duty:** at the place of training or basic.

## **C - Training of skills to perform treatments and procedures medical**

**Basic training in maxillofacial surgery Procedure designation:**

**Code A** - performing alone with assistance or under the supervision of the head of the specialty or a specialist designated by him/her (number); **Code B** - in which the doctor participates as first assistant (number).

*List and number of treatments and medical procedures that apply to the doctor during the **basic internship**:*

<b>Medical treatments/procedures</b>	<b>Code A</b>	<b>B-code</b>
1. stable osteosynthesis in mandibular fractures	20	20
2. conservative treatment of condylar process fractures	10	10
3. surgical treatment of mandibular condylar process fractures	5	10
4. surgical treatment of jaw fractures	5	5
5. surgical treatment of fractures of the zygomatic complex jaw	5	5

<b>Medical treatments/procedures</b>	<b>Code A</b>	<b>B-code</b>
6. surgical treatment of orbital fractures (e.g. <i>blow-out</i> )	5	5
7. orbital reconstruction with grafts or implants	5	5
8. surgical treatment of lower lip cancer with reconstruction	3	3
9. partial or total resection of the jaw due to cancers	2	5
10. partial mandibular resection	5	5
11. selective nodal operations	5	5
12. complex nodal surgery	1	5
13. surgical treatment of morphological maxillofacial malformations orofacial-occlusal conditions, e.g. progenia, microgenia	1	5
14. reconstructive treatment of post-split deformities	0	1
15. reconstructive procedures using flaps and grafts	25	25
16. surgical treatment of salivary gland tumours, including tumours of the parotid	3	5
17. surgical treatment of cysts, fistulas and malformations neck	1	5
18. surgical treatment of diseases of the maxillary sinuses	15	10
19. surgical treatment of abscesses and abscesses	30	20
20. tracheotomy	5	10
<b>Total</b>	<b>151</b>	<b>164</b>

### **Directional placements**

#### **Procedure designation:**

**Code A** - performing alone with assistance or under the supervision of the head of the specialty or a specialist designated by him/her (number); **Code**

**B** - in which the doctor participates as first assistant (number).

Procedures that are obligatory to be performed during the internship are not accounted for in the Electronic Specialty Card. The completion of the entire internship means the completion of the operations, treatments and medical procedures required by the internship programme.

*List and number of treatments and medical procedures that are obligatory for the doctor during the course of his/her internship:*

<b>Medical treatments/procedures</b>	<b>Code A</b>	<b>B-code</b>
<b>General surgical internship</b>		
1. administer local anaesthesia and regional	5	5
2. incision and drainage of an external abscess	5	5
3. 'acute abdomen', surgical treatment	0	5
4. gastrointestinal haemorrhage - treatment	0	2
5. treatment of vascular injuries - stopping haemorrhage external and management of lower limb ischaemia	0	2
6. acute appendicitis - treatment surgical	0	2
<b>Total</b>	<b>10</b>	<b>21</b>
<b>Vascular surgery internship</b>		
1. suturing of a blood vessel	0	2
2. execution of a vascular anastomosis	0	2
3. bypass grafts in arterial disease	0	2
4. abdominal aortic aneurysms	0	2
5. lower limb varicose vein surgery	0	2
<b>Total</b>	<b>0</b>	<b>10</b>
<b>General internship in thoracic surgery</b>		
1. classic bronchoscopy	0	2
2. insertion of drainage in emphysema, haematoma, abscess pleural cavity	0	1
3. fine needle aspiration biopsy through the wall chest	0	3
<b>Total</b>	<b>0</b>	<b>6</b>
<b>Internship in orthopaedics and traumatology of the musculoskeletal system</b>		
1. spinal stabilisation with implants	0	1
2. application of a plaster femoral dressing, hip, corset	0	3

<b>Medical treatments/procedures</b>	<b>Code A</b>	<b>B-code</b>
3. conservative repositioning of a long bone fracture	0	3
4. fixation of bone fragments with screws, plate, intramedullary, external stabiliser	0	2
5. hip endoprosthesis	0	2
6. arthroscopy of the knee joint	0	2
<b>Total</b>	<b>0</b>	<b>13</b>
<b>Otorhinolaryngology internship</b>		
1. cancer of the larynx and pharynx, treatment	0	2
2. tracheotomy, tracheostomy	3	0
3. treatment of peri-tonsillar abscesses	1	3
4. nasal bone fracture, treatment	2	2
5. curvature of the nasal septum, treatment	0	2
6. sinusitis - conflict estuary-wire	0	3
<b>Total</b>	<b>6</b>	<b>12</b>
<b>Plastic surgery internship</b>		
1. various types of local plasticity, including "with" art	3	2
2. intermediate and full-thickness skin grafts	2	2
3. various types of plasty with skin flaps, dermal and fascial, dermo-muscular and muscular	2	3
4. plastic surgery of the cleft upper lip and palate	0	3
5. correction of congenital and post-traumatic deformities nose	0	3
6. arterialised flap plasty	0	2
<b>Total</b>	<b>7</b>	<b>14</b>
<b>Internship in neurosurgery</b>		
1. fracture of the bones of the cranial vault, cavities -. diagnosis and treatment	0	3
2. intracranial (paracentral) haematomas, skull trepanation	0	5
3. treatment of post-traumatic meningeal fistulas	0	1

<b>Medical treatments/procedures</b>	<b>Code A</b>	<b>B-code</b>
with leakage of cerebrospinal fluid through the nose		
4. lumbar puncture - measurement of cerebrospinal fluid pressure, macroscopic evaluation and laboratory fluid	0	2
5. assessment of parietal haematoma and base fractures anterior cranial fossa on CT scan	0	5
<b>Total</b>	<b>0</b>	<b>16</b>
<b>Pediatric surgical internship</b>		
1. neonatal surgery	0	1
2. inguinal hernia operation	0	1
3. surgery for testicular hydrocele	0	1
4. appendectomy	0	1
<b>Total</b>	<b>0</b>	<b>4</b>
<b>Internship in ophthalmology</b>		
1. treatments in post-traumatic eye injury, eyelids, tear ducts	0	2
2. visual acuity test	5	0
3. examination of the visual field, double vision and their evaluation	5	5
<b>Total</b>	<b>10</b>	<b>7</b>
<b>Internship in anaesthesiology and intensive care</b>		
1. carrying out respiratory and cardiac resuscitation in basic terms	0	5
2. ensuring and maintaining the permeability of roads respiratory tract by endotracheal intubation	10	0
3. perform chest compressions and replacement ventilation	5	0
4. assessment of brainstem death	0	2
5. providing oxygen therapy	0	2
6. perform defibrillation	3	0
7. performance of lower lumbar anaesthesia	0	1



<b>Medical treatments/procedures</b>	<b>Code A</b>	<b>B-code</b>
8. nasotracheal intubation	5	1
<b>Total</b>	<b>25</b>	<b>9</b>
<b>Internship in internal medicine</b>		
1. subjective and physical examination	40	40
2. interpretation of biochemical test results icoagulology	40	40
3. assessment of unconsciousness according to the Glasgow scale	2	3
4. taking and reading of the ECG (interpretation of the ischaemia and cardiac arrhythmias)	20	40
5. perform defibrillation	2	3
6. puncture of peripheral arteries to collect blood for gasometric testing	2	5
7. interpretation of basic radiological examinations	20	40
<b>Total</b>	<b>126</b>	<b>171</b>
<b>Clinical oncology internship</b>		
1. clinical and radiological diagnosis of cancers of the oral cavity, face and bone jaws	5	5
2. collection of specimens for examination histopathology	5	5
3. follow-up of patients after treatment oncology	10	20
<b>Total</b>	<b>20</b>	<b>30</b>
<b>Internship in radiology and diagnostic imaging</b>		
1. interpretation of conventional radiographs in patients with inflammatory conditions, trauma, tumours and facial malformations, oral cavity and jawbone	0	10
2. interpretation of CT studies in patients with inflammatory conditions, trauma, tumours and defects development of the face, mouth and jawbone	0	20

<b>Medical treatments/procedures</b>	<b>Code A</b>	<b>B-code</b>
3. interpretation of RM studies in patients with inflammatory conditions, trauma, tumours and defects development of the face, mouth and jawbone	0	10
4. interpretation of ultrasound examinations in patients with conditions inflammatory diseases, trauma and tumours of the face, mouth and jawbone	0	20
5. interpretation of PET studies in patients with cancer of the face, mouth and jawbone	0	5
<b>Total</b>	<b>0</b>	<b>65</b>
<b>Internship in radiation oncology</b>		
1. participate in the identification process cancers	0	20
2. collection of specimens for examination histopathology	5	10
3. participating in the planning of radiotherapy treatment	0	10
4. participating in follow-up examinations of patients after oncological operations and irradiation	0	20
<b>Total</b>	<b>5</b>	<b>60</b>

### **C - Medical on-call duty**

A dental practitioner shall perform medical on-call duties at an average of 10 hours 5 minutes per week or shall perform shift work or equivalent working time, at the maximum working time allowed by the regulations on medical activity, i.e. at an average of 48 hours per week, including medical on-call duty, in the adopted reference period. A doctor may perform accompanying or independent medical on-call duties. The head of the specialty, in consultation with the head of the entity or organisational unit of that entity, gives consent, by means of the SCM, for the doctor undergoing specialty training to perform independent medical on-call duties.

In the case of on-call medical training, the doctor has the option of choosing the place of on-call medical training. A doctor may

be on call at the unit providing specialty training or at the unit providing the training.

This shall be decided by the doctor in consultation with the head of specialisation.

The conduct and organisation of medical on-call duties shall be in accordance with the rules set out

in the provisions of the Act on the Profession of Physician and Dentist.

## **E - Self-study**

The dental practitioner is obliged to undergo continuous and active self-education in order to deepen his/her knowledge, to keep up to date with advances in the field of maxillofacial surgery, and in particular to make use of recommended literature, to attend educational meetings of scientific societies, to write publications and to participate in other forms of self-education indicated by the head of the specialty.

### **1. Literature study**

The dentist should use up-to-date textbooks and scientific journals in the field of maxillofacial surgery, as well as other sources of knowledge as indicated by the head of the specialty.

### **2. Participation in educational activities**

The dentist should actively participate in:

- 1) scientific and training sessions;
- 2) national congresses of cranio-maxillofacial and dental surgery;
- 3) European cranio-maxillofacial surgery congresses;
- 4) national and European congresses in related fields (oncology, plastic and reconstructive surgery, general surgery, neurosurgery, otolaryngology, orthodontics);
- 5) and other educational events organised by health institutions.

### **3. Preparation of publications**

The dental practitioner is required to write a scientific paper published in a peer-reviewed medical journal, of which the practitioner is the author or co-author, or a review paper - on a topic covered by the specialisation programme.

### **4. Additional days for self-study**

As of 1 January 2019, a doctor undergoing specialisation training shall be entitled to six days per year of self-study, allocated for the participation of the doctor to attend conferences, scientific courses, in-service courses and other training directly related to the doctor's field of specialty training, according to the doctor's choice and educational needs. Deadline

and the way in which the doctor uses the additional days for self-training shall be determined in agreement with the doctor by the head of the specialty through an appropriate shortening of other compulsory elements of the specialty training. This shortening may not concern specialty courses, but only the basic internship or the guided internship, while all elements of the specialty training (internships) must be completed and passed. The specialty director shall first decide on an appropriate reduction in the duration of the core internship, and only where this is not possible, shall shorten the duration of in-service training accordingly, but the in-service training shall not be shortened by more than half of the duration provided for in the specialisation programme. Additional days for self-training not used in a given year of specialisation shall not be carried over to subsequent years of specialisation training.

## **V. ASSESSMENT OF KNOWLEDGE AND PRACTICAL SKILLS**

### **1. Tests and colloquia on theoretical knowledge**

The dental practitioner is obliged to:

- 1) a test or colloquium at the end of each course of the knowledge covered by the course programme (with the course leader);
- 2) taking a colloquium at the end of each internship on the knowledge covered in the internship programme (with the internship/specialisation director).

## 2. Ongoing assessment and practical skills tests

The head of the specialty or the internship supervisor carries out an ongoing assessment of the practical skills acquired by the doctor, during the individual internship.

The doctor is obliged to pass a test of practical skills (included in the training programme), i.e. the passing by the doctor of medical procedures and procedures performed independently with assistance or under the supervision of the head of specialisation or a specialist appointed by him/her (code A) or medical treatments and procedures in which the doctor participates as first assistant (code B). The credit is recorded in the Electronic Specialty Card.

## 3. Evaluation of a scientific or review paper

The head of the specialty evaluates the theoretical papers prepared by the doctor that are included in the specialty programme: scientific or review papers.

## VI. DURATION OF SPECIALISATION TRAINING

Duration of specialty training in oral and maxillofacial surgery for dentists holding a level II specialisation or a specialist title in the field of dental surgery is 5 years.

<b>Course of specialisation training</b>			
<b>Course no.</b>	<b>Specialisation courses:</b>	<b>Duration</b>	
		<b>number weeks</b>	<b>number of days working</b>
1.	Introductory course: "Introduction to specialization in maxillofacial surgery". face"	0,6	3

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2.	Course: 'Recognition, differentiation and treatment of specific and non-specific inflammation of soft and hard tissues of the craniofacial region and neck, directions of spread and principles of treatment abscesses and abscesses of the craniofacial region"	0,6	3
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3.	Course: 'Maxillary sinus diseases - their diagnosis, differentiation and treatment"	0,6	3
4.	Course: "Cysts of the maxillofacial region and Neck. Etiopathogenesis, diagnosis, differentiation, treatment"	0,4	2
5.	Course: 'Etiopathogenesis, diagnosis and treatment of Temporomandibular joint disorders".	0,6	3
6.	Course: 'Potentially malignant disorders, features of benign and malignant tumours of the oral cavity and craniofacial region - their recognition and treatment"	0,4	2
7.	Course: 'Epidemiology, diagnosis and surgical and combined treatment of malignant neoplasms of the face, oral cavity, facial region skull and neck"	0,6	3
8.	Course: 'Craniofacial skeletal fractures -. Their diagnosis, classification and treatment"	0,6	3
9.	Course: 'Orbital fractures - diagnosis, differentiation and treatment"	0,6	3
10.	Course: 'Conservative and surgical treatment of fractures condylar processes of the mandible"	0,4	2
11.	Course: 'Etiopathogenesis, morphology, diagnosis, differentiation and surgical treatment of congenital and acquired maxillofacial malformations'. occlusion"	0,6	3
12.	Course: 'Diseases of the salivary glands- diagnosis, differentiation, treatment"	0,6	3
13.	Course: 'Transfusion of blood and blood components'.	0,4	2
14.	Course: 'Medical Jurisprudence'.	0,6	3
15.	Course: 'Prevention and health promotion'.	0,4	2
16.	Attestation (summary) course: "Surgery maxillofacial"	1	5

<b>Total duration of specialisation courses</b>		<b>9 wks.</b>	<b>45</b>
<b>Inte rnshi p No.</b>	<b>Directional placements:</b>	<b>Duration</b>	
		<b>number weeks</b>	<b>number of days working</b>
1.	Basic training in maxillofacial surgery face	155	775
2.	General surgical internship	10	50
3.	Vascular surgery internship	2	10
4.	General internship in thoracic surgery	2	10
5.	Internship in orthopaedics and traumatology of the musculoskeletal system	4	20
6.	Otorhinolaryngology internship	2	10
7.	Plastic surgery internship	6	30
8.	Internship in neurosurgery	6	30
9.	Pediatric surgical internship	2	10
10.	Internship in ophthalmology	2	10
11.	The training course in anaesthesiology and intensive care	6	30
12.	Internship in internal medicine	6	30
13.	Clinical oncology internship	2	10
14.	Internship in radiology and diagnostics imaging	2	10
15.	Internship in radiotherapy oncology	4	20
<b>Total duration of directed placements</b>		<b>211 wks.</b>	<b>1055</b>
Self-study		0,8	4
<b>Total duration of specialisation training</b>		<b>220 wks. and 4th day</b>	<b>1104</b>



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<b>Holidays and public holidays:</b>	<b>Duration</b>
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	<b>number weeks</b>	<b>number of days working</b>
Training leave to prepare for and take the PES	1 week and 1 day	6
Holidays	26 wks.	130
Public holidays	13 wks.	65
<b>Total duration of specialty training</b>	<b>261 wks.</b>	<b>1305</b>
Additional days for self-training (6 days in each year of specialisation) to attend conferences, scientific and refresher courses and other trainings in a particular field of specialisation to be chosen by the doctor		<b>30</b>

## VII. STATE SPECIALISATION EXAMINATION

Specialisation training in maxillofacial surgery ends with the State Specialisation Examination, consisting of a test examination and oral examination:

- 1) The test exam is a set of questions on the required knowledge set out in the specialisation programme, containing five answer options, of which only one is correct;
- 2) The oral examination shall include problem-based questions on the required knowledge set out in the specialisation programme.

## **Annex to the programme of specialisation in maxillo-facial surgery for dentists**

### **ACCREDITATION STANDARDS FOR TRAINING PROVIDERS**

- conditions to be fulfilled by the unit in order to ensure the implementation of the specialisation programme in maxillo-facial surgery

The specialty training provider is required to meet the following accreditation standards:

- 1. In carrying out activities corresponding to the profile of the business conducted specialisation training:*
  - a) to have within its organisational structure a department of maxillo-facial surgery or another organisational unit with the status of an entity performing medical activity, confirmed in the Register Book by an appropriate code characterising the specialisation of the organisational unit of the medical establishment providing specialised health services in the field of maxillo-facial surgery, to have beds intended for patients to whom health services are provided in the field of the specialisation which is the subject of the application. Accreditation is based on the performance of the treatments and procedures indicated in the basic internship.
- 2. In terms of providing the organisational conditions for the implementation of specialisation and self-training programme to a certain number of doctors:*
  - a) to have an appropriate teaching room, equipped with audiovisual equipment, Internet access and basic textbooks and scientific journals in the field covered by the specialisation programme.
- 3. For the provision of quality supervision of training specialisation:*
  - a) having a committee or appointing a person responsible for assessing the quality of training, organising regular meetings with doctors undergoing specialisation training, receiving and analysing comments made by doctors regarding problems in the implementation of the aforementioned training.

4. *In terms of ensuring the monitoring of a doctor's specialty training records:*
  - a) periodic control of specialisation training charts and indexes of procedures and medical procedures performed by doctors undergoing specialisation training, - verification of the timeliness of taking and passing specialisation courses, internships and performance of procedures and medical procedures covered by the specialty programme, carried out by the committee or person responsible for assessing the quality of the training.
  
5. *In terms of ensuring adequate staffing:*
  - a) having a cadre of specialists who can act as heads of specialisation.
  
6. *Regarding the provision of equipment and apparatus necessary for the implementation of the programme specialisation:*
  - a) to have the equipment and apparatus necessary for the provision of in-patient hospital treatment of the following profile: maxillo-facial surgery - at least first reference level, in accordance with the regulations governing the provision of in-patient hospital treatment.
  
7. *With regard to the provision of health services enabling a certain number of doctors to follow the specialisation programme:*
  - a) Providing specialist health services in the field of maxillofacial surgery,
  - b) providing specialised health services, performing treatments and procedures of an appropriate type, to the extent and in such numbers as to enable all doctors undergoing specialisation training, in a given unit, to follow the programme of specialisation, including the performance of treatments and medical procedures as defined in the specialisation programme,
  - c) one training place for at least 100 maxillo-facial hospitalisations per year,

- d) signing agreements with accredited units for the implementation of guided internships specified in the specialisation programme, which the unit does not provide within its organisational structure.

8. *For the provision of round-the-clock health services to people who are hospitalised or do not require hospitalisation, in health and life-threatening emergencies and in other cases of urgency:*

- a) there is a 24-hour emergency room/SOR for maxillofacial surgery patients in the hospital where the department applying for accreditation is located,
- b) there is access to OAiT (Anaesthesia and Intensive Care Unit) or intensive care beds in the hospital where the maxillofacial surgery department is located,
- c) in the department of maxillo-facial surgery there is a 24-hour on-call service medical.

9. *Regarding the provision of medical on-call duties for doctors undergoing specialised training:*

- a) ensuring medical on-call duty at the rate specified in the specialisation programme or to perform shift work or equivalent work at the maximum working time allowed in the legislation on therapeutic activity.