

Visit Report

DentEd Site Visit



**PALACKY UNIVERSITY
FACULTY OF MEDICINE**

OLOMOUC

CZECH REPUBLIC

18 – 22 September 1999

Report of DentEd Visitors to

**PALACKY UNIVERSITY
FACULTY OF MEDICINE
OLOMOUC, CZECH REPUBLIC**

DEPARTMENT of STOMATOLOGY
Dates of Visit September 18th – 22nd 1999

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INFORMATION FOR VISITORS

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Section 1 - Introduction

1.1 Background

The history of higher education in Olomouc began in 1566, when a Jesuit college was established here. In 1573 this college was granted University rights, identical with those of other European institutions of higher education. The University of Olomouc as a second oldest university in the Czech lands (after Charles University in Prague) spread its influence through Moravia and Silesia, and also Austria, Germany, Poland, Eastern Europe and Scandinavia. Jesuits governed the University for two hundred years and the Faculty of Theology played a central role in its life. Later there was established the Faculty of Philosophy, where natural sciences were also studied. In the lists of students we can find such famous names as e.g. Gregor Mendel (father of genetics), or Duke Albrecht of Wallenstein (the famous general). During the stormy years of the Thirty-years War the University of Olomouc was temporarily closed, then re-established and re-organized repeatedly. In the 19th century its continuity was asserted only by the Faculty of Theology.

Today, the Faculty of Medicine, as one of the seven faculties of Palacký University, re-established in 1946, provides the study in General Medicine and Stomatology (twelve semesters - six years), bachelor's study in nursing (three years) and therapeutic rehabilitation and physiotherapy (four years).

Palacký University is a public university supported and financed by the Czech State. University studies are free of charge for Czech students.

Faculty of Medicine is directed by the Dean, nominated by the Rector (Chancellor) of the University for a three-year period on recommendation of the Academic Senate of the Faculty. The management of the faculty consists (besides of Dean) of five Vice-Deans (one of them responsible for Dental Studies) and an economic manager.

Academic Senate as an autonomous body of the Faculty is elected for a three-year period by the members of the academic community (both teachers and students). The Scientific Council of the Faculty, nominated by the Dean, consists of scientists, important personalities and specialists in various fields of medicine. The Scientific Council approves programs of study; main research targets of the Faculty and also recommends nominations for professors.

The study program in Dental Medicine is represented and co-ordinated by the Vice Dean for Dental Studies who, as a member of Faculty Management, acts as a Deans adviser and co-ordinator of the pre- and postgraduate study programs in Dentistry. Vice Dean is a member of the Scientific Council of Faculty, takes part in the admission procedures of Dental students and acts as the co-ordinator of the acquisition of new members of the of Academic Staff. He meets students regularly, solves and forwards their suggestions to the Dean and Faculty Management.

1.2 The primary functions of the institution in the field of dental education are:

1. Clinical training and education of undergraduate and postgraduate students of Dentistry
2. Training and education of dental technicians (in collaboration with the High Nursing School)
3. Postgraduate training of Consultant and Specialists in Oral Surgery, Orthodontics and Periodontology
4. Research
5. Patient Services

1.3 Curriculum

The study of Dentistry at Palacký University is an autonomous component of instruction at the Faculty of Medicine. Its sense and purpose is to prepare students for their career of expert dentists and at the same time to make it possible for them to acquire basic knowledge of general medical disciplines. The study program spread over six years, takes place independently of general Medicine right from the very beginning. Each year of study consists of two equal fifteen weeks terms (semesters). Study programs of theoretical and preclinical disciplines are modified with a point of view to the future specialisation of the graduate and differ from the general medicine program in their content as well as in the number of hours of classroom time. There are even more marked differences between the two study programs in the instruction of clinical subjects, in which, especially in the final years, both the classroom time and practical training are fully devoted to the specialised dental disciplines.

The first two years of Dental Study (first rigorosum) encompass mostly theoretical subjects, as Anatomy, Histology and Embryology, Chemistry, Biology and Genetics, Physiology and Biophysics. Pregraduate dental specialisation already begins in the first phase, which contains 3 semesters of instruction in Preclinical Dentistry.

Preclinical subjects (Pharmacology, Pathology, Pathophysiology, Clinical Anatomy of head and Neck and Microbiology) are taught during the 3rd year of study (second rigorosum). In this second phase our students become acquainted with the basics of prosthetic technology and the significance of Psychology and Ethics in dental practice.

Last three years (third rigorosum) are devoted to education and practical training in clinical (both medical and dental) disciplines. Three clinics, specialised in dentistry, provide both theoretical and practical instruction of students. Each of these clinics is expertly profiled and focused on concrete dental disciplines. 1st Clinic of Stomatology offers instruction in Preventive Dentistry, Operative Dentistry and Endodontics, Paedodontics, Periodontology and Diseases of Oral Mucous Membranes. 2nd Clinic of Stomatology offers Preclinical Dentistry, Prosthetic Dentistry, Orthodontics and related disciplines, as e.g. Prosthetic Technology. The specialisation of the Clinic of Oral and Maxillofacial Surgery is clear from its name.

A component of the study program also consists of seven-week training in private dental offices out of University facilities, dispersed over the 10th and 12th semesters of study. The management of the faculty has gradually become successful in acquiring a more or less stable circle of external co-operators. Thanks to the willingness and kindness of some of our foreign colleagues we have been able to

arrange field practice of selected excellent students in private dental offices abroad (Germany, U.S.A.).

Successful graduate leave the Faculty as a Doctor of Medicine (Medicinae Universae Doctor = MUDr.) with specialisation in Dental Medicine.

The difficult pregraduate curriculum does not allow concurrent study both of Dentistry and General Medicine. A graduate in Dentistry, however, has the chance to acquire approbation in General Medicine within the framework of a two-semester differential course of study, which must begin within three years after completion of the study of Dentistry. The acquisition of these two approbations is essential for doctors who want to specialise in Maxillofacial Surgery after graduation.

After 1989, relatively important changes were made in the study program. One of them was the lengthening of dental studies from 10 to 12 semesters. In this way much more room was gained for improvement of the quality of instruction, especially in dental disciplines. A further change was the bringing in of the rigorous method of studies, which are at the present time divided into three separate wholes (see above).

The inclusion of more basic medical and behavioural science material in the dental curriculum is a continuation of a trend which started just after World War II in this Country. Who can say that the physician of the mouth needs less basic medical education than the physician of the ear, nose and throat, or the eye? Philosophy of our pregraduate curriculum accepts the fact that, in both scope and content, dental medicine is a medical speciality.

STRUCTURE OF PREGRADUATE CURRICULUM - DENTAL MEDICINE

I. Theoretical Disciplines

Subject (semester)	Lectures	seminars	exercises	total
Normal Anatomy (1,2,3)	135		165	300
Histology and Embryology (2,3)	75		90	165
Medical Biology and Genetic (1,2)	60		90	150
Medical Chemistry (1)	45		15	60
Biochemistry (3,4)	90	15	105	210
Biophysics (1,2)	60		60	120
Physiology (3,4)	75	30	90	195
Total	540	45	615	1200
Latin (1,2)			60	60
Foreign Language (1,2)			60	60
Total			120	120

II. Preclinical Disciplines

Subject (semester)	lectures	seminars	exercises	total
Pathology (5,6)	60		105	165
Pathophysiology (5,6)	60		75	135
Pharmacology (5,6)	60		75	135
Microbiology (4,5)	60		90	150
Clinical Anatomy (Head and Neck) (5)	15		15	30
Total	255		360	615

III. Medical Disciplines

Subject (semester)	Lectures	seminars	exercises	total
Internal Medicine (5,6,7,8,9,10)	45	75	127	247
General Surgery (6,7,8,9,10)	45	75	135	255
Dermatovenereology (7)	15	15	15	45
Neurology (7)	15		15	30
Medical Immunology (7)	15		30	45
Psychiatry (8)	15		30	45
Ophthalmology (8)	15		30	45
Otolaryngology (8)	15		45	60
Paediatrics (9)	15		30	45
Radiology (10)	15		30	45
Forensic Medicine, Medical Law (9)	15		30	45
Epidemiology (9)	15		45	60
Gynaecology and Obstetrics (10)	30		30	60
Infectious Diseases (8)	7,5	7,5	7	22
Social and Health Care Policy (10)	15	15		30
Medical First Aid (2)	15		15	30
Total	307,5	187,5	614	1109

IV. Dental Disciplines

Subject (semester)	lectures	seminars	exercises	total
Preclinical Dentistry (2,3,4,5)	60		240	300
Prosthetic Technology (6)	15		45	60
Preventive Dentistry (6,7)	15	15	30	60
Psychology and Ethics in Dentistry (5)		30		30
Operative Dentistry+Endodontics (6,7,8,9,10,11,12)	45		216	261
Paedodontics (8,9,10,11,12)	8	30	96	134
Periodontology and Diseases of Oral Mucosa (9,10,11,12)	30	15	111	156
Prosthetic Dentistry (7,8,9,10,11,12)	75		318	393
Orthodontics (10,11)	15		105	120
Oral and Maxillofacial Surgery (6,7,8,9,10,11,12)	98	15	285	398
Professional Lectures (11)		30		30
Oral Biology (11)		7		7
Oral Biochemistry (11)		7		7
Dental Implantology (11)		4		4
Orthodontic cooperation (11)		6		6
Suprastandard Procedures in Endodontics (11)			10	10
Mucogingival Surgery (11)	10			10
Preparation Course for Metalokeramic Crowns (11)			4	4
Training in Private Dental Office (10)			90	90
Total	371	159	1640	2080

Theoretical Disciplines (hours)	1200	23%
Preclinical Disciplines	615	12%
Medical Disciplines	1109	21%
Dental Disciplines	2080	41%
Others	120	3%
<hr/>		
Total	5124	100%

General Aims

- To provide future dentists with an ethical and appropriate scientific foundation for a lifetime of learning and professional development
- To promote and develop clinical competence in primary oral health care and prevention
- To ensure that the educational programme at least fulfils national (and EU requirements).

General Objectives

These are set out in detail under the different subject headings in following sections inclusive and are only covered in broad outline in this introductory stage of the report.

- To produce dentists who on graduation are capable of carrying out the practice in dentistry (under professional supervision during the first two years) in all facets as appropriate for adults, children and special needs patients, at least to the primary care level, including: oral diagnosis, restorative dentistry, Periodontology, oral surgery, oral medicine and pathology, within the context of prevention and health promotion.
- To provide competence in and knowledge of human diseases to a level that is compatible with the appropriate and safe management of dental patients including those who require first aid and cardio-pulmonary resuscitation and enables effective Cupertino with specialists in other medical disciplines.
- To provide sufficient education and training in the pre-clinical and para-clinical sciences in order to understand and acquire the competences required of a practising dentist.
- To ensure that students have an appropriate understanding of the basic and biological sciences that is sufficient for them to understand the clinical and para-clinical sciences and also to provide them with an acceptable scientific basis to perform as a member of one of the professions in the health sciences.
- To provide them with an acceptable basis in the science of materials appropriate to modern dentistry.
- To ensure that the dental student has a sufficient and appropriate understanding of the biological, psychological and sociological parameters of dental science and their appropriate application in clinical dentistry.
- To promote a responsible attitude both for the individual and the profession in the identification of appropriate and ethical priorities in the delivery of oral health services and prevention.
- To encourage the recognition of one's limitations in the provision of treatment for patients.

Strengths

- pregraduate curriculum with balanced relations among theoretical, preclinical, medical and dental disciplines
- modern equipment of most teaching laboratories and dental offices
- transparency
- continuously under review
- most shortcomings are recognised
- assessment methods complement educational objectives and methods

Weaknesses

- Contemporary economical rules of health service system disregarding peculiarities of teaching hospitals:
 - dense regional network of private dental offices, absence of patients financial motivation = lack of patients suitable for practical training of dental students
- insufficient financial support of Clinics and Faculty
- small attractivity of university teacher profession for young colleagues (low salaries)
- complicated and irrational system of management of Clinical Departments (see 3.1)

Innovations

Clinical Credit Hours (since 1999/2000)

Continual modernisation of clinical workplaces

Continual modernisation of laboratories for preclinical training

Visitors Comments

The stomatology curriculum in the Faculty of Medicine in the University of Palacky, Olomouc, Czech Republic, is a most important model for comparison with the odontological approach generally found in the European Union. It is an excellent example of the classical stomatological curriculum and is especially significant in the context of the likely extension of the European Community to include the Czech Republic and ten other countries designated as associated countries. As a consequence the free movement of health care personnel including "dentists" is likely to follow. This visit was therefore one of the most significant DentEd visits.

The curriculum is comprehensive with a broad theoretical base especially in the preclinical and medical sciences. It appears that the major factor influencing the curriculum content, sequence and design is the importance given to retaining recognition as a "medical doctor" of which stomatology is essentially one speciality. It also allows the stomatological graduates to complete their medical qualification after only one year of additional study after graduation. It shares full recognition as a medical discipline with other medical specialities.

The visiting group, whilst realizing the historical and practical history of the stomatological curriculum, question whether the significant dominance of the medical training component is justifies the time devoted to medical sciences, especially in respect of the the level of detail in the pre-clinical sciences. Medical curricula throughout the world are not without their own weaknesses in respect of excessive detail, ill-defined outcome objectives, and difficulty in adapting to rapidly changing concepts due to so many disciplines and interests. Whatever system of education is adopted, the DentEd visitors believe that what is important is the outcome of the educational programme. Of particular importance is the integration of the curriculum within and between departments and later in the report the Visitors advocate the establishment of a curriculum committee or planning group which is widely representative and includes students. In the EU there is a growing emphasis on the overall clinical competence of the new dentist and their ability to meet the challenge of practising dentistry or stomatology whilst coping with changing concepts as lifelong

students in the health sciences. The visitors were less concerned about the way in which that objective is achieved whether through stomatology or odontology.

The visitors backgrounds were from schools which applied the odontological curricular approach and also were probably preconditioned in their thinking by the general move in the EU from stomatology towards odontology and perhaps anticipated that a similar process would influence stomatology programs such as those in Olomouc. However, on completing the visit in Olomouc it was agreed that the move from odontology to stomatology may not be desirable for academic, clinical and practical reasons in the circumstances that pertain in Olomouc and in many other schools in the associate countries. There are many factors which would strongly influence the continuance of stomatology, not least the strongly held views of many staff and students, the practical implications and complexity of change, the overwhelming strength of the physician/oral surgeon axis as well as some educational advantages in the more medically orientated stomatology curriculum. The University of Palacky's Stomatology curriculum includes many elements which could be applied to considerable advantage in most EU dental schools. Also there are many aspects of EU curricula which could be introduced to the stomatological approach to great advantage especially in prevention and the the oral/dental care of patients. The consensus of visitors was that a gradual transition was desirable between the two models; one with a greater emphasis on the medical sciences and oral surgical skills, the other (odontology) with greater emphasis in the acquisition of clearly defined clinical competences in clinical dentistry as practised in the EU and North America. Wisdom might suggest that both sytems should be made compatible in an extended Europe.

The visitors were conscious of the advantage of a curriculum extending over a six year period. As long as the stomatological approach is retained it will be essential to retain a six year program. Perhaps consideration might be given to increasing the clinical aspects of the medical sciences especially as they relate to primary health care and the comprehensive care of the "clothed patient". This would seem more relevant to the routine activities of dentists and stomatologists as advocated in many references to the so called "Oral Physician" of the future. The Visitors noted that the Stomatology graduates of the University of Palacky have a further two years of supervised practice following six years in Stomatology where they acquire further skills in the practice of stomatology. There are parallels here with vocational training in some EU countries. This is an important factor when making comparisons with EU regulations which require graduates to be competent in the independent practice of Dentistry on completion of their undergraduate training which is usually five years. Apart from the comparisons with the EU systems this also has major financing implications for funding authorities.

It is important to emphasise that for the purposes of this report any comments made in the context of the Olomouc curriculum relate to that philosophy, its objectives and outcomes and should not be interpreted as a effort of the visitors to move the stomatological curriculum towards the odontological model.

It seemed to the visitors that there is insufficient integration of the preclinical and medical disciplines with the “dental“ clinical disciplines. A concerted effort to integrate the medical sciences with the dental sciences together with reinforcement in the delivery of patient care, would enhance the overall quality of the curriculum without losing the valuable assets of the Medical Faculty's commitment to the stomatologist educational mission of the university.

It was apparent from documentation and discussion with all concerned that there was insufficient discussion on curricular development and content with some duplication and some omissions. The visiting team recommend that a **curriculum review committee** should be formed to evaluate the curriculum in the context of enhancing the vertical integration of medicine, consider outcome and quality improvement in respect of objectives set and assessing the appropriateness of the time in the curriculum allowed for each subject whilst enhancing the opportunities for comprehensive care of the patient with oral/dental health needs.

The visitors recommend that as a priority consideration should be given to the set of competences and core knowledge set as guidelines by the Advisory Committee on the Training of Dental Practitioners (see <http://www.dented.org>)

Finally it is important to say that the Visitors were not competent to comment on the social and geo-political influences on education in general and attitudes towards independent learning. The history of the Czech Republic is complex, has born severe trauma at societal and personal levels. This has been matched by heroic responses and sophisticated reconstruction of a talented population which has exerted much influence on the cultural and historical developments in central Europe and far beyond. This history was a source of considerable education for the Visitors and enormous admiration for achievements in a rapidly changing and evolving society which were crafted with considerable skill. These comments must therefore be viewed in that context, made by a group of visitors in awe of considerable achievement and growth in the Czech Republic and looking at one small facet of development in the Czech Republic.

Section 2 - Facilities

(including Library, Lecture Theatres, Seminar Rooms etc.)

2.1 Clinical Facilities (70 dental chairs/units)

There are three dental clinics, specialised in certain fields of dentistry (see 1.3) with total number of 70 dental chairs.

The 1st and 2nd Clinics of Stomatology are situated in the centre of the city in a shared building. Both these clinics were re-adapted in 1997/98 and equipped by modern dental units. At present their equipment is probably the best in Czech Republic. Besides of rooms for clinical dental training the 2nd Clinic of Stomatology includes a teaching laboratory for preclinical education (20 places) and prosthetic laboratories. There is an auditorium for 80 students equipped with audio-visual technology, a small library and some seminar rooms for smaller groups of students.

Clinic of Oral and Maxillofacial Surgery is situated in a twenty years old building in the area of the Faculty Hospital. In 1998, this department was partially modernised. While the first two departments offer outpatient dental services during the working hours only, the Clinic of Oral and Maxillofacial Surgery includes both the outpatient and inpatient departments and uninterrupted dental emergency service. There is an X-ray department both for intra- and extraoral X-ray management (incl. OPG), three operation rooms for surgical procedures made under local and general anaesthesia and a small teaching laboratory equipped with simulators for training of application of local anaesthesia and tooth extractions. The clinic has a small library, an auditorium for 30 students and seminary room for a smaller group of students.

All clinics are designed for the optimal use of staff in the supervision of students. On the other hand the disposition of rooms for clinical training afford the patients to have a certain extent of necessary privacy.

Preclinical, para-clinical and medical disciplines are taught by specialised departments of the Faculty of Medicine. The study programs of dental students differ from those of the students of general medicine in the total number of teaching hours and are adapted and focused to the needs of future oral physicians.

Strengths

Modern equipment of clinics and laboratories. Contacts and good relations with other faculties in the Czech Republic in the framework of the Association of Dental Educators. Continual discussion of actual problems of undergraduate curriculum, fluent exchange of experience takes place. Co-operation with private dental offices in Central and Northwestern Moravia (lectures, seminars, experience exchange). Stabilised teaching staff consisting of high-skilled specialists. Student: staff ratios vary from 1:8 to 1:4 and may be even as low as 1:1 for more advanced irreversible procedures. For most clinical procedures it is 1:4.

Weaknesses

See 1.3

Best Practices

See strengths

Innovations

This is perhaps one of the most carefully designed modern dental teaching hospitals in Czech Republic and might be useful as a reference source for other faculties.

2.2 Teaching Facilities

Our dental students have access to all of the teaching facilities of the Faculty of Medicine, incl. Central Library, and recreational and cultural facilities of Palacký University. In addition the Dental Clinics have the following:

- 2 Lecture Rooms (80 and 30 seater)
- 3 Seminar Rooms

Strengths

- Considerable research visits to other schools in the Czech Republic, exchange of experience between Czech Medical Schools with dental education.

Weaknesses

- Limited financial budget.

Best Practices

Accent to practical training as a part of the study program.

Innovations

Co-operation with private dental offices enables our students better understanding of private practice problem and asserting after graduation.

2.3. Teaching Laboratories

Teaching laboratories for students' education in theoretical disciplines (Anatomy, Histology and Embryology, Chemistry, Biophysics, Physiology) and preclinical disciplines (Pathophysiology, Microbiology, Pharmacology) are organic parts of single departments. Students of Dental and General Medicine use them during practical training.

Teaching laboratories for preclinical training in Dentistry are situated at the 2nd Clinic of Stomatology. They are equipped with 4 simulator units KaVo ELW 5190, 4 simulators Frasaco and 16 simulator heads (Trystom) for practical training both in Operative Dentistry and Prosthetics, 33 technical drilling machines, 30 micromotors, 5 light curing lamps, audiovisual technique incl. TV-camera and other necessary prosthetic laboratory equipment. This teaching laboratory was partially modernized last year.

Small teaching laboratories are placed at the 1st Clinic of Stomatology (preclinical training in Periodontology and Endodontics) and at the Clinic of Oral and Maxillofacial Surgery (training in tooth extractions and injection anaesthesia). These facilities enable to our students training just during the clinical practice.

Strengths

Most efficient use of resources.

Weaknesses

Small number of up-to-date dental simulators (lack of financial resources).

Best Practices

See strengths

Innovations

KaVo simulators at the 2nd Clinic of Stomatology

Visitors Comments

There are three separate and distinct clinics in Olomouc; one of which is maxillofacial surgery separated from the two stomatology clinics by a 10 minute drive. The main library is also separate which is discussed below. Inevitably these different locations mitigate against integration between departments and staff. It might even contribute to some degree of rivalry or lack of appreciation of what is happening and being achieved in the other departments. This adds complications to scheduling and may contribute to difficulties in staff of the different centres meeting regularly to exchange views and opinions. Clearly funds are not currently available to rationalise these facilities but it would be desirable in the long term to rehouse them in a single site within the university hospital complex. In the meantime there is a serious need to encourage more frequent meetings of the staff from the different clinics with emphasis on closer integration and awareness. The purpose of DentEd is to promote better understanding between countries but in Olomouc and virtually in all other schools there is a need to better understand what is happening in other departments of the same school.

The conditions in the clinics were clean and with modern equipment. The stomatological clinics 1 and 2 had been re-equipped in the last 2 years with state-of-the-art dental units from Germany. The clinics were bright and friendly. However, improvements are desirable in clinics 1 & 2 in the application of universal precautions in effective cross infection control (see below).

Infection Control

We observed the implementation of basic infection control procedures in all areas of clinics 1 and 2. Faculty and staff were seen to be wearing gloves and masks. Instruments and handpieces were disinfected and sterilized. All clinical areas were clean and orderly consistent with a program of infection control. Nevertheless, these procedures did not meet current standards in all respects as practised in other countries. The European Union and North America have recently moved from requiring basic infection control procedures to universal precautions. The underlying philosophy of this approach is to assume that all patients are possibly infectious and therefore a more intense level of routine infection control procedures has become the standard. The materials and equipment needed to implement universal precautions is in place at the Dental School and Hospital; a quality assurance program which moves towards this new approach could easily be established. Gloves, masks and protective eyewear should be worn during any patient procedure. Gloves and masks should be discarded after each patient use or after any contact with a potentially contaminated surface, such as the dental light or bracket table. Individually dispensed packets of disposables, such as gauze and cotton balls should be available only for single use in order to avoid contamination in the containers currently in use. Most important would be an appreciation for potential contamination through contaminated glove contact with and potential contamination of clean surfaces or objects during patient procedures.

One aspect which illustrates prioritisation of competence and knowledge base was the inconsistent use of protective eye-wear. This is essential in order to avoid direct trauma to eyes and avoid infection from the well known hazards of foreign bodies emitted from the use of high speed rotary instruments in the dental surgery and

laboratories. Although stomatological students in Olomouc have 45 hours devoted to ophthalmology in lectures and clinics the practical application of such fundamental principles was missing despite the theoretical preparation students received. This might be one isolated episode or perhaps it is one of many more examples of medical theory without practical application. It might be useful to set up a monitoring group in respect of appropriate application of universal precautions.

2.4 Research Laboratories

Dental branch as a part of the Faculty of Medicine can use research laboratories of the Faculty departments specialised in preclinical and theoretical disciplines. There has been close co-operation between e.g. the 2nd Clinic of Stomatology and Department of Medical Chemistry in testing the properties of dental materials and alloys. Long lasting co-operation of the Clinic of Oral and Maxillofacial Surgery and the Clinic of Oncology are focused on the problems of complex rational treatment of malignant tumours of the oral cavity and face. The same Clinic closely collaborates with the Paediatric Department in non-invasive treatment of children suffering from large haemangiomas of the oral cavity and face.

Weaknesses

No research laboratories as a part of dental clinics.

Strengths

Closer connection of dental studies and human disciplines enables more complex view of research problems.

Visitors Comments

See comments in respect of Research – end of Section 21, page 115.

2.5 Medical Library and Learning Resource Centre

Mgr. Jarmila Potomková
e-mail: potomokov@tunw.upol.cz

MISSION: The Mission of the Medical Library and LRC is to advance education, research, and patient care by providing publication-based and electronically-transferred information to the university community and health care providers.

BOOK COLLECTION

Medical Faculty book collection equals more than 150,000 items. In 1992 the library went electronic and at present there are about 25,000 electronic records as a part of Palacky University electronic union catalogue (URL: <http://tin.upol.cz>).

- **Reference Books**
include specialized dictionaries and a selection of textbooks in different medical and nursing specialties.
- **Student Collection**
comprises up to 10,000 medical textbooks, manuals and handbooks. Books may be borrowed for 1 semester.
- **Departmental Libraries**
Most books are deposited in 46 departmental libraries located in the Medical Faculty institutes and clinics. They can be used for reference reading or borrowed for a four-week period.

PERIODICALS

The library currently subscribes to over 346 serials titles.

- **Electronic Journals**
The library users have the access to 17 core biomedical electronic journals from any networked PC.
- **Newly arrived Journals**
are put on display and remain there until a new issue appears.
- **Back Volumes**
are arranged according to disciplines for a free access in the Main Reading Room (a 5-year retrospective). Older volumes can be borrowed on request. Under normal conditions all journals may be borrowed except for the latest issue.

MULTIMEDIA COLLECTION

The library holds an up-to-date collection of videos, slides, CDROMs with special relevance to medical and related areas.

The library provides facilities for viewing videos and working with CDROMs (2 computer rooms with a total of 20 PCs with a public access for students).

DATABASES AND INTERNET RESOURCES

There are several medical and health databases available in the Medical Faculty LAN. They include MEDLINE, HEALTHSTAR, CURRENT CONTENTS, AISLP (Czech Drug Database), BIBLIOMEDICA CZECHOSLOVAKA (Czech medical bibliography) etc.

Non.networked databases are available in the institutes and clinics (PEDIATRICS ON DISC, NEUROLOGY ON DISC, CURRENT PROTOCOLS IN MOLECULAR BIOLOGY, COCHRANE LIBRARY)

Library staff make regular suggestions about high-quality Internet medical sites that can be a good starting point for locating health sciences information on the Internet and provide training for end-users of electronic information resources.

SERVICES

- Database Searching
Skilled information specialists conduct literature searches on different health-related subjects
- Document Delivery and Interlibrary Loans
We deliver full text articles from our collection, other medical libraries in the Czech Republic and beyond. We have a contract with the Document Delivery Centre in Bielefeld (Germany) to procure articles from medical journals that are not available in the CR. The articles are being sent electronically.
- Consultations, Training
Library staff make regular suggestions about high-quality Internet medical sites that can be a good starting point for locating health sciences information on the Internet and provide training for end-users of electronic information resources.
- Availability
Medical Faculty staff and , students as well as Teaching Hospital staff may use the library resources, services, computers and access to the Internet without charge.

Extramural users have the access to the resources and services for fee.

Visitors Comments

This is a highly organised library run by a dedicated librarian.

The library is used by all of the Faculty yet it did not include some of the leading dental research journals such as Archives of Oral Biology, Journal of Dental Research or Journal of Clinical Periodontology and this needs to be addressed.

The texts retained for dentistry are outdated and limited although these are supplemented with dept. texts.

Although there were 20 PCs in the library we were advised that the library had potentially 1,700 users. This is a matter for concern particularly in the context of limitations on available journals and the enormous potential of the internet to compensate in some respects. We strongly recommend further investment in this area.

The space in the library was limited although well kept. The room in which all journals were kept had only 20 reading places for a potential use of 1,700 and this needs expansion.

From what we gathered in subsequent discussions dental students did not use the library very extensively in searching the literature. Generally they availed of the reading in the department or at home and normally material covered in lectures. Perhaps a more coordinated approach might be formalised than the present approach.

The visitors suggest that a Faculty Library Users Group should seek to expand, improve and modernise the library facilities. Nevertheless the commitment of an efficient librarian and the physical facilities are a good basis on which to make progress.

SECTION 3 - Administration and Organisation

3.1 Clinical/Academic Organisational Structures for School & Hospital

Dental education both in theoretical and preclinical disciplines is provided by the specialised departments of Faculty, centralised in a shared building. The Head of each Department is responsible to the Dean of Faculty for the quality of student's education and its smooth operation. Teaching and research laboratories and seminar rooms are at the disposal both of the students of General Medicine and Dentistry. There are three lecture theatres, the Central Library with a reading room and 20 computers on Internet for students. Clinical education and training of Dental students in the framework of pregraduate curriculum (see 1.3) are guaranteed by Clinical Departments (incl. three Clinics specialised in dental disciplines). The main task of these clinical departments is, beside pedagogical and research activities, to extend specialised health services for patients from the region of Central Moravia (1 mil. inhabitants approx.) The Head of each Department (Professor or Associated Professor) is responsible to the Dean for the content and standard of paedagogical and scientific work and - to the Director of the Faculty Hospital - for the standard of medical care extended by the Department. The Minister of Health and Minister of Education nominate Faculty Department Heads for three years period both. The Head directs both the Academic Staff (employees of University) and Medical Staff (doctors and nurses - employees of the Hospital). Academic Staff incl. the Head are usually part time employees of the Hospital (0.15 - 0.30). Pedagogical and research activities of Faculty Departments are funded from the University budget (Ministry of Scholarship), fees paid by foreign students and means from grant agencies. The health services extended by clinical departments are financed from the Health Insurance.

3.2 Non-Clinical/Academic Administrative Structures

The most important component of academic administrative structures of the Faculty is the Dean's Office. Its Study Department, the staff of which is directed by Vice Deans takes care of students' admission procedure, registration, contacts between students and Faculty academic management, stipends, students applications for accomodation in the halls of residence etc.

The Economic Manager and his staff, responsible for the Faculty budget collaborate with the University economic management.

The Dean's Department of Research and Foreign Relations guarantees collaboration among Faculty Management and Doctoral Program Boards. For postgraduate study (incl. this of dentistry), it takes care of stays of academic staff members and students abroad and, on the other hand, of foreign visitors stay at the Faculty. The Vice Dean for Research submits to the Dean and Scientific Council proposals for nominations professors. An important role is played by this Department in contacting and collaborating with the grant agencies.

3.3 Information Technology

Personal Computer Access for Students

20 PC's in Central Library Computer Room

Lecture Theatre Facilities

Theoretical Department Building (shared with medical students):

- 1 lecture theatre for 350 students incorporating:

Dual Slide Projection, Video etc..

- 2 lecture theatres for 100 students incorporating

Slide Projection

2nd Clinic of Stomatology:

-1 lecture theatre for 80 students incorporating:

Dual Slide Projection, Video, Audio etc.

Clinic of Oral and Maxillofacial Surgery:

1 lecture theatre for 30 students incorporating:

Dual Slide Projection, Video, etc.

In collaboration with the Czech Dental Chamber the Dental Clinics our Faculty serves as a centers of distance learning (life-long education) for dental practitioners in rural areas (see 20.2).

Visitors Comments

See end of Section 4 page 27.

Section 4 - Staff

Professor Jindřich Pazdera
email: pazderaj@fnol.cz

The dental staff establishment and infrastructure of our Faculty has been developed and increased particularly since 1947. It is considered the most significant achievement of all the developments in this Dental School and Hospital.

Clinical Academic Staff Statistics (clinics specialized in dental disciplines only):

Category	1 st Clinic of Stomatol.	2 nd Clinic of Stomatol.	Clinic of Oral and Maxillofacial Surgery	Total
Professors	-	2	2	4
Assoc.Professors	4	1	1	6
Sen.Lecturers	6	11	6	23
Lecturers		1		1
Total	10	15	9	34

VICE DEAN FOR DENTAL STUDIES

Jindřich Pazdera
MUDr., Ph.D.
Professor of Stomatology

1st Clinic of Stomatology

Head: Jitka Stejskalová
MUDr., Ph.D.
Assoc. Professor of Stomatology

Staff of the 1st Clinic of Stomatology:

Department	Academic staff	Non-academic medical staff	Nurses	Technicians	Dental Chairs for students' training
Operat. Dentistry	6	2	5	-	13
Paedodontics	3	4	4	-	9
Periodontology	2	2	3	-	6
Total	11	8	12	-	28

Secretary: 1

Academic staff members:

Department of Operative Dentistry and Endodontics

Miluše Dufková, MUDr.
Senior Lecturer

Osman Elton, MUDr.
Senior Lecturer

Lenka Macháčková, MUDr.
Senior Lecturer

Jiřina Prošková, MUDr., Ph.D.
Senior Lecturer

Zdeňka Zapletalová, MUDr.
Senior Lecturer

Department of Paedodontics

**Sylvia Fialová, MUDr., Ph.D.,
Associated Professor of Stomatology**

Květoslava Nováková, MUDr., Ph.D.,
Associated Professor of Stomatology

Přemysl Krejčí, MUDr.
Senior Lecturer

Department of Periodontology and Diseases of Oral Mucous Membrane

**Hana Černá, MUDr., Ph.D.
Associated Professor of Stomatology**

Martin Starosta, MUDr., Ph.D.
Senior Lecturer

2nd Clinic of Stomatology

Head: **Miroslav Eber,**
MUDr., Ph.D.
Professor of Stomatology

Staff of the 2nd Clinic of Stomatology:

Department	Academic staff	Non-academic medical staff	Nurses	Technicians	Dental Chairs for students' training
Prosthetic Dent.	7	-	7	18	11
Orthodontics	3	2	5	See Prosthetics	12
Preclinical Dent.	4	-	3	See Prosthetics	3
Total	14	2	15	-	26

Secretary: 1

Academic staff members:

Department of Prosthetic Dentistry

Marcela Bernardová, MUDr., Ph.D.
Associated Professor of Stomatology

Jan Bezrouk, MUDr., Ph.D.
Senior Lecturer

Jitka Lichnovská, MUDr., Ph.D.
Senior Lecturer

Petr Pírek, MUDr.
Senior Lecturer

Kateřina Tatarková, MUDr.
Senior Lecturer

Joseph Sheety, MUDr.
Senior Lecturer

Department of Orthodontics

Milan Kamínek, MUDr., Ph.D.
Professor of Stomatology

Miloš Špidlen, MUDr., Ph.D.
Senior Lecturer

Marie Štefková, MUDr., Ph.D.
Senior Lecturer

Department of Preclinical Dentistry

Jarmila Badalová, MUDr.
Senior Lecturer

Zdena Bezrouková, MUDr.
Senior Lecturer

Marcela Frommerová, MUDr.
Senior Lecturer

Katarina Jansová, MUDr., Ph.D.
Senior Lecturer

Clinic of Oral and Maxillofacial Surgery

**Head: Jindřich Pazdera,
MUDr., Ph.D.,
Professor of Stomatology**

Staff of the Clinic of Oral and Maxillofacial Surgery

Department	Academic staff	Non-academic medical staff	Nurses	Technicians + Radiographers	Dental Chairs for students' training
Outpatient Dept.	5.3	4	6	2+2	12
Inpatient Dept.	3.1	2	6	-	2
Operation rooms			4		3
Total	8.4	6	12	2+2	17

Secretary: 1

Academic staff members:

Emil Jirava, MUDr., Ph.D.
Professor of Stomatology
(part-time engagement 0.3)

Pavel Majer, MUDr., Ph.D.
Associated Professor of Stomatology

Arnošt Brázda, MUDr., Ph.D.
Senior Lecturer
(part-time engagement 0.1)

Dagmar Hanáková, MUDr.
Senior Lecturer

Bohuslav Jureček, MUDr., Ph.D.
Senior Lecturer

Eva Justová, MUDr., Ph.D.
Senior Lecturer

Vladislav Mořka, MUDr.
Senior Lecturer

Jan Paroulek, MUDr., Ph.D.
Senior Lecturer

Vítězslav Zbořil, MUDr.
Senior Lecturer

Visitors comments:

It was clear that the School of Stomatology is an important and respected unit within the Medical Faculty. It is very fortunate in its sagacious and firm yet sympathetic leadership of the Vice-Dean responsible for Stomatology Jindrich Pazdera together with a committed team of Departmental Heads and Senior Staff. There was also a very enthusiastic and hard-working group of more junior staff whose involvement in decision making and strategic development was not apparent. If as one senior staff member said that these were the future of the School in Olomouc it would seem to be desirable to the Visitors to involve them to a far greater extent in curriculum planning, development and review as well as involvement in the management of the School. The visitors recognised that this may reflect cultural differences, nevertheless education is a continuum and it is preferable if all staff and indeed student representatives share a sense of ownership in the curriculum and clinical procedures.

The visitors perceived an unhelpful separateness between the staff of the different departments which could lead to isolated and limited vision for the future of the institution. Elsewhere the visitors recommend the setting up of a curriculum committee and a review group for application of universal precautions. Such developments also offer considerable potential for involvement, empowerment and a sense of commitment to running of the institution thereby preparing staff for their future responsibilities and providing direct feedback to heads of department.

It would also be helpful if most administrative duties could be delegated to administrative staff. Not alone might this be more efficient, it would also free clinical/academic staff to spend more time on research and teaching. This requires more administrative staff with a clear understanding of and participation in setting priorities.

Section 5 – Theoretical Disciplines

5.1 MEDICAL BIOPHYSIC, BIOSTATIC AND INFORMATION SCIENCE

Head: Jan Hálek, Assoc. Prof., Ing., PhD.

Person in school who will explain and show this to the visitors:

Roman Kubínek, Assoc. prof., RNDr., Ph.D. e-mail: kubin@tunw.upol.cz

Curricular timing: 1st and 2nd semesters – 1st year of dentistry

Semester	Study form	Hours per semester	Hours per week
1 st semester	Lectures	30	2
	Practical training	30	2
2 nd semester	Lectures	30	2
	Practical training	30	2

Primary aims:

The purposes are to explain biophysical principles of physiological procedures in human body. Essential goal of practical teaching is to raise student's basic customs, which are necessary for working with medical appliances. As a part of this course, there is practical tutorial with personal computer, when students familiarise with application of software used in medicine.

Form of teaching:

Lectures and practical training completed by video-programs and PC work.

Main objectives:

Basic of informatics and computer techniques. Basic of biostatistics. Introduction to biocybernetics. Cellular biophysics. Biophysical function of sensory system. Optic analyser. Acoustic analyser. Biophysics of tissue and organ. Ultrasonography. X-rays utilisation in medicine. Basic of ecological biophysics.

Assessment methods:

Students 100% attendance in practical training, plus correct fulfilment of test before every practical training. This is followed by the practical exam, which successful termination is condition for passing rigorous exam from medical biophysics and information science.

Strengtts:

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Medical Biophysic LF UP, Hněvotínská 3, Olomouc, tel. 5632101

5.2 MEDICAL CHEMISTRY

Head: Vilím Šimánek, prof. MUDr., RNDr., DrSc.

Person in school who will explain and show this to the visitors:

J. Vičar., Assoc. Prof., RNDr., Ph.D e-mail: jarvic@tunw.upol.cz

Course design:

Basic knowledge of biophysical, inorganic, bioinorganic, organic, and bioorganic chemistry required for medical studies.

Curricular timing: 1st semester – 1st year

Semester	Study form	Hours per semester	Hours per week
1 st semester	Lectures	45	3
	Practical training	15	1

Primary aims:

The student shall master the principles of biophysical, inorganic, bioinorganic, organic, and bioorganic chemistry as a prerequisite for being able to study and understand biochemistry. From the practical aspect, the student shall be able to execute basic operation in the laboratory.

Main objectives:

Physical chemistry of solutions. Thermodynamics. Kinetics. Metals, nonmetals, metalloids and their compounds. Structure and reactivity of organic compounds. Systematic organic and bioorganic chemistry (nomenclature, structure, properties, importance in biological systems, relationship to medication, toxicity).

Methods of teaching:

Lectures, seminars, and laboratory training.

Assesment methods:

100% attendance at practical training, written test and interview (oral examination).

Strengths:

Weaknesses:

Medical chemistry textbooks oriented on dentistry students are not available.

Provided by:

Department of Medical Chemistry and Biochemistry, LF UP, Hněvotínská 3, 77515 Olomouc, tel. 563 23

5.3 MEDICAL BIOCHEMISTRY

Head: Vilím Šimánek, Prof. MUDr., RNDr., DrSc.

Person in school who will explain and show this to the visitors:
Daniela Walterová, Assoc. Prof. RNDr., Ph.D. e-mail:walter@tunw.upol.cz

Course design:

The course consists of general biochemistry, biochemistry of human tissues, and selected chapters from pathobiochemistry.

Curricular timing: 3rd and 4th semesters – 2nd year

Semester	Study form	Hours per semester	Hours per week
3 rd semester	Lectures	45	3
	Practical training	60	4
4 th semester	Lectures	45	3
	Seminars	15	1
	Practical training	60	4

Primary aims::

The student shall master the theoretical principles of biochemistry and regulation of metabolic pathways as a prerequisite to the interpretation of physiological and pathological processes in human organism. From the practical aspect, the student shall be able to perform simple biochemical analysis and evaluate the results of laboratory tests.

Main objectives:

Structure and function of cellular compartments. Structure and function of proteins. Enzymes as catalysts. Bioenergetics. Biological oxidations. Biologically important radicals. Metabolism of carbohydrates, lipids, steroids, amino acids and proteins, tetrapyrroles, nucleotides and nucleic acids, minerals. Regulation of metabolic pathways. Mechanism of hormone action. Biochemistry of liver and metabolism of xenobiotics. Biochemistry of muscle, connective tissues and bones, brain, vision. Disorders of carbohydrate, lipid and lipoprotein metabolism, metabolic changes in Diabetes mellitus. Disorders of amino acid, catecholamine, tetrapyrrole metabolism, electrolyte and acid-base balance. Biochemistry of proliferative processes.

Methods of teaching:

Lectures, seminars, and laboratory trainings (complemented with videoprograms).

Assesment methods:

100% attendance at seminars and laboratory training, successful passing of test. The exam consists of written test (MCQ type), essay and interview.

Strengths:

Weaknesses:

Textbooks oriented on dentistry students are not available.

Provided by:

Department of Medical chemistry and Biochemistry LF UP, Hněvotínská 3, 775 15 Olomouc, tel. 5632301

5.4

PHYSIOLOGY

Head: Josef Petřek, prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:

Alena Merkunová, Assoc. Prof., MUDr., PhD. e-mail: merk@tunw.upol.cz

Course design:

To develop theoretical knowledge from physiology of human organism, in the framework necessary for one's successful study of clinical disciplines.

Curricular timing: 3rd and 4th semester – 2nd year

Semester	Study form	Hours per semester	Hours per week
3 rd semester	Lectures	30	2
	Practical training	45	3
	Seminars	15	1
4 th semester	Lectures	45	3
	Practical training	45	3
	Seminars	15	1

Primary aims:

The main aim is to obtain integrated conception of physiological activity of healthy organism and about borders in which healthy organism is able to face up against alterations of internal environment.

Main objectives:

Membrane physiology of excitable tissues, cardiovascular system, heart electric activity, function of arterial and venous framework, lymphatic system, respiratory system, kidney and homeostasis of human body. Gastro-intestinal tract and physiology of the nourishment. Nervous system, sensory receptors, extro-reception, physiology of movement, motor function of spinal cord, integrating function of CNS, physiology of behaviour and memory, endocrine system.

Methods of teaching:

Lectures, seminars and practical training: according to possibility all forms of tutorial are completed by visual documentation, video-projection and computers.

Assessment methods:

Active attendance in specified seminars and practical trainings, successful passing of computer based test (multiple choice questions) and final examination.

Strengths:

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Physiology LF UP, Hněvotínska 3, 775 15 Olomouc, tel. 563 2352.

5.5 BIOLOGY AND GENETICS

Head: Karel Lenhart, prof. RNDr., DrSc.

Person in school who will explain and show this to the visitors:

Jiří Kunert, Assoc. Prof., RNDr., Ph.D. e-mail: kunert@tunw.upol.cz

Course desing:

The course is focused on those aspects of general biology important for medical studies, including cytology in co-ordination with histology, molecular biology and genetics on the level of molecules, cells, organisms and populations.

Curricular timing: 1st and 2nd semester – 1st year

Semester	Study form	Hours per semester	Hours per week
1 nd semester	Lectures	30	2
	Practical training	45	3
2 rd semester	Lectures	30	2
	Practical training	45	3

Primary aims:

The course is aimed at expanding the students knowledge of those aspects of general biology which are fundamental for further studies of specialized fields in medicine (histology, biochemistry, immunology, hygiene, epidemiology, etc.).

Main objectives:

Organization of living systems, acellular and cellular organisms, prokaryotes and eukaryotes. Basics of virology. Genetics of multicellular organisms. Types of reproduction, sexual reproduction, meiosis, the gametes, fertilization. Phenotype and genotype, hybridization method, Mendel's laws. Biology of populations. Population genetics. Organisms and environment - basics of ecology; ecology and medicine. Basics of human genetics. Modern methods in the study of human genome. Genetics of cancer. Genetics and medicine, genetic counselling.

Methods of teaching:

Lectures and practical trainings complemented by slides and video-programms.

Assessment methods:

100% attendance at practical trainings plus successful passing an exam - interview.

Strengths:

Students are prepared well to the study of histology, biochemistry, immunology and furhter pre-clinical subjects.

Weaknesses:

Only slight differentiation between the study of general medicine and dentistry.

Provided by:

Department of Biology LF UP, Hněvotínská 3, 775 15 Olomouc, tel. 5632152

5.6. GENERAL ANATOMY

Head: Vladimír Holibka, Prof., MUDr., DrSc.

Person in school who will explain and show this to the visitors:
Vladimír Holibka, Prof., MUDr., DrSc. e-mail: holibka@tunw.upol.cz

Course desing

The course is devoted to the study of human body anatomy with special emphasis to the head and neck area.

Curricular timing: 1st and 2nd semester – 1st year
3rd semester – 2nd year

Semester	Study form	Hours per semester	Hours per week
1 st semester	Lectures / Practical training	45 / 45	3 / 3
2 nd semester	Lectures / Practical training	45 / 60	3 / 4
3 rd semester	Lectures / Practical training	45 / 60	3 / 4

Primary aims:

Students are obtaining some basic informations out of systematic and clinical anatomy. These acquaintances are used for pre-clinical and clinical disciplines in range necessary for future doctors of dental medicine.

Main objectives:

General osteology, arthrology a myology, pointed to head and neck region and the TM joint plus the masticatory unit, including vascular and nervous supply. General anatomy of peripheral nervous system, nerves of the limbs. Heart and body vascular system. Basic of the organology, systematics of the alimentary tract with intent on oral cavity. Systematics of the respiratory, urinary and genital tract. Neuroanatomy of the CNS, Systematics of the the cranial nerves, anatomy of the senses.

Methods of teaching:

Lectures and practical trainings with clinical demonstrations in dissection room, complemented by video-programs from the "Video-atlas of anatomy". Topographical dissection of the limbs. Post-mortem of human body.

Asessment methods:

Attendance in 14 practical trainings at each semester. Participation in dissections in extenso. Succesful passing of a written test, a practical examination in dissection room and a theoretical exam- an interview.

Strengths:

Students are handy in practical training.

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Anatomy LF UP, Hněvotínská 3, 775 15 Olomouc. tel. 5632202

5.7. HISTOLOGY AND EMBRYOLOGY

Head: Václav Lichnovský, Prof., MUDr., DrSc.

Person in school who will explain and show this to the visitors:

Eva Pospíšilová, MUDr., PhD. e-mail: pospe@tunw.upol.cz

Course desing :

The course is devoted to the study of the development, microscopic structure and ultrastructure of cells, tissues, and human organs.

Curricular timing: 2nd semester – 1st year
3rd semester – 2nd year

Semester	Study form	Hours per semester	Hours per week
2 nd semester	Lectures	30	2
	Practical training	45	3
3 rd semester	Lectures	45	3
	Practical training	45	3

Primary aims:

After completing the course, the student should be able to demonstrate a knowledge of microscopic structure of tissues and human organs, identify tissues and organs by means of light microscopy, with an emphasis to oral cavity organs. Students should know the development of human embryos, and the development of the organ systems also with special emphasis to oral cavity organs. These knowledges are exploited in study of periodontics, restorative, and maxillofacial surgery.

Main objectives:

Histology, cytology, general histology (microscopic structure of blood and the basic tissues, i.e. epithelial, connective, muscle, and nervous), microscopic anatomy of the systems (cardiovascular, lymphatic, respiratory, digestive, endocrine, urinary, male genital, female genital, integumentary, nervous, sense).
Embryology - gametogenesis, the development of the human embryo, the development and the structure of chorion and placenta.

Methods of teaching:

Lectures and practical trainings, complemented by slides.

Assessment methods:

100% attendance in practical trainings plus successful passing of partial tests in practical trainings and passing the Histology-Embryology exam, which consists of a practical component, a written test (MCQ type) and an interview.

Strengths:

Special attention is paid to the histology and embryology of the orofacial region. Students can use our own lecture notes, e. g. J. Malínský: Histology and Embryology of the orofacial region.

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Histology and Embryology LF UP, Hněvotínská 3, 775 15 Olomouc, tel.: 563 2251

Visitors comments:

In the time available it was not possible to enter into the detail provided in each of the pre-clinical and basic science departments. The visitors were impressed with the reputation of the stomatology students compared to their medical counterparts. Interestingly this was ascribed to the high percentage of stomatologists' children in the school (25%) who were thought to have a greater sense of focus and vocation. Such an impression would be contrary to perceptions in many other health science faculties. The fact that there is a much greater chance of employment following a stomatological training compared to a medical one was also felt to be important in recruiting motivated students.

It was clear to the visitors that the medical/science teachers of the Stomatology students were dedicated and committed to achieving the highest standards in the knowledge gained by their students. However it was not as apparent that the individual disciplines were integrated or the the knowledge base prioritised and essential feature of an effective curriculum. Also there seemed to be an emphasis on memory for purposes of examinations rather than the application of science to the clinical; practice of stomatology.

In discussion with students it was apparent that there were still some Professors and Lecturers who simply wished to have their own lectures regurgitated by the students. There was considerable emphasis on memorising information rather than student learning and the acquisition of learning skills. Neither was it obvious to the visitors that despite the addition of much new information that sufficient effort was made to eliminate less essential detailed information. Also there was a tendency to seek to have students learn evrything available rather that have them prepare for a lifetime of learning new information.

Educational objectives were listed for each subject. However it might be useful if instead of listing subjects consideration be given to defining outcome and expectations of students especially in terms of prioritising certain items of information.

These comments also apply to the pre-clinical disciplines and the medical sciences and in respect of specific objectives. It is also helpful to identify levels of skill and competence expected of students in those areas.

Section 6 – Preclinical Disciplines

6.1

PHARMACOLOGY

Head: Nina Škotová, Assoc. Prof., RNDr., Ph.D.

Person in school who will explain and show this to the visitors:
Jaroslav Jezdinský, Prof. MUDr. Ph.D. e-mail: dagmar@tunw.upol.cz

Course design:

The subject comprises general and special pharmacology and the principles of medicament prescription.

Curricular timing: 5th and 6th semester – 3rd year

Semester	Study form	Hours per semester	Hours per week
5 th semester	Lectures	30	2
	Practical training	30	2
6 th semester	Lectures	30	2
	Practical training	45	3

Primary aims:

Students are acquainted with basic principles of general pharmacology (pharmacodynamics and pharmacokinetics, adverse drug reaction and nomenclature of drugs). They receive basic knowledge of special pharmacology, main drug groups and their significance for the dental practice. Students are trained in the drug prescription.

Main objectives:

Basic principles of pharmacodynamics and pharmacokinetics, drug interactions and abnormal reactions to drugs, drug forms and application methods, introduction of new drugs into clinical practice. Complete survey of main drug groups, with the description of their effect mechanisms, adverse reactions, indications and application methods. Basic survey of the pharmacotherapy of the most important serious clinical conditions and intoxications. Principles of drug prescription.

Methods of teaching:

Lectures and practical training complemented by video-programs and excursion to hospital pharmacy.

Assessment methods:

100% attendance in practical trainings plus successful passing the examination, which consists of a practical part and an oral exam focused on theoretical knowledge of general and special pharmacology.

Strengths:

Close linkage of lectures and practical training.

Weaknesses:

Low participation of students in lectures – (this participation is voluntary).

Provided by:

Department of Pharmacology LF UP, Hněvotínská 3, 775 15 Olomouc, tel.5632552

6.2 MICROBIOLOGY

Head: Václav Hájek, Prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:

Dagmar Koukalová, MUDr., Ph.D. e-mail: koukal@risc.upol.cz

Course design:

The subject includes general microbiology, special and clinical microbiology.

Curricular timing: 4th semester – 2nd year
5th semester – 3rd year

Semester	Study form	Hours per semester	Hours per week
4 th semester	Lectures	30	2
	Practical training	45	3
5 th semester	Lectures	30	2
	Practical training	45	3

Primary aims:

The student acquires a general overview of the organization and manifestations of microorganisms. At the end of the course, the student shall be able to understand principles of sterilization and disinfection, to have a complex review of antibiotics and chemotherapeutical remedies used in infections treatment, he/she will understand problems of resistance and prevention, s/he will have a basic knowledge of infectious immunity and serologic diagnosis.

Main objectives:

Morphologic, physiologic, genetic, and binomic properties of microorganisms, basics of sterilization and disinfection, properties and effects of antibiotics, the defense of the organism against infection, basics of infectious serology.

In special and clinical microbiology s/he understand problems of biological properties of pathogens and their toxicity, pathogenesis, is taught detailed symptomatology of infectious diseases, antibiotherapy, epidemiology, prevention and laboratory diagnostics. In practical training sessions, the student is introduced to basic laboratory methods for the diagnosis of infectious diseases, microscopic, cultural, and biochemical examination of bacteria, the determination of sensitivity to antibiotics, serologic methods, demonstrating procedures of viral, fungal and parasitic infections.

Methods of teaching:

Lectures and practical trainings complemented by slides and videoprograms.

Assessment methods:

The final examination consists of practical laboratory and theoretical parts on general, special and clinical microbiology).

Strengths:

Special topics on oral microbiology.

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Microbiology LF UP, Hněvotínská 3, 775 15 Olomouc, tel.: 5632401-2

6.3 GENERAL PATHOLOGY

Head: Jaroslav Dušek, Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:

Jiří Mačák, prof., MUDr., PhD. e-mail: macak@risc.upol.cz

Course design:

Students learn the basic mechanisms of diseases, their causes, pathogenesis and morphological (macroscopical and microscopical) symptoms. During the second semester, knowledge of general pathology is applied to individual organ systems.

Curricular timing: 5th and 6th semesters – 3rd year

Semester	Study form	Hours per semester	Hours per week
5 th semester	Lectures / Practical training	30 / 45	2 / 3
6 th semester	Lectures / Practical training	30 / 60	2 / 4

Primary aims:

The aim of the course is to familiarize students with causes and basic pathogenetic mechanisms of diseases and their morphological (macroscopical and microscopical) signs.

Main objective:

Introduction, basic terminology. Cellular damage, cellular death, necrosis, apoptosis. Causes, pathogenetic mechanisms and signs of inflammation. Causes of neoplastic diseases, pathogenic mechanisms in the formation of tumours. General classification of neoplasms. Genetic causes of diseases. Physical and chemical causes of diseases. Pathology of the heart and blood vessels. Non-neoplastic and neoplastic diseases of the haematopoietic system. Bleeding disorders. Pathology of the respiratory tract and lungs. Diseases of the digestive tract (digestive tube, liver, biliary tract, pancreas). Pathology of the kidneys, genital tract. Pathology of the nervous system. Diseases of the muscles, bones and joints. Diseases of the endocrine glands. The role of pathology in clinical medicine. Inflammatory, neoplastic and other lesions of the oral cavity and of the salivary glands. Diseases of periodontium. Odontogenic tumours.

Methods of teaching:

Lectures and practical trainings complemented by slides and demonstration of bioptic and necroptic material at dissection room.

Assessment methods:

100% attendance in practical trainings, successful passing of written test and rigorous exam – an interview.

Strengths:

Small discussion groups on histological lesions with illustrative short case reports. Regular demonstration of the current autopsies.

Weaknesses:

Lack of co-ordination between clinical demonstrations and microscopical findings.

Provided by:

Department of Pathology, Hněvotínská 3, 775 15 Olomouc tel. 543 2466

6.4 PATHOPHYSIOLOGY

Head: Jaroslav Veselý, Assoc. Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:

Jaroslav Veselý, Assoc. Prof., MUDr., Ph.D. e-mail: vesely@risc.upol.cz

Course design:

Theoretical background of illness, the role of internal and external factors, general pathophysiological reactions and their significance. Special pathologic physiology of organ systems with an emphasis on aetiopathogenesis and the dynamics of diseases with respect to the diagnostics and therapy.

Curricular timing: 5th and 6th semesters – 3rd year

Semester	Study form	Hours per semester	Hours per week
5 th semester	Lectures	30	2
	Practical training	30	2
6 th semester	Lectures	30	2
	Practical training	45	3

Primary aims:

The aim of this subject is to understand relationships between diseases and their clinical symptoms.

Main objectives:

The student will understand the causes and systemic cellular and subcellular mechanisms of the development of the most significant diseases and their symptoms and syndromes. Students interpret anamnestic, laboratory and other clinical data when evaluating the pathogenesis of various diseases. They will understand the principles of experimental and clinical research.

Methods of teaching:

Seminars and lectures complemented by slides, video-programs and computer simulations of basic pathogenetics mechanisms in human body. Practical training of basic surgical manipulation using laboratory animals.

Assesment method:

100% attendance in practical training plus successful passing of the examination, which is composed of a/an written test (50-100 questions, MCQ type) and an interview.

Strengths:

Systematic approach, clearly-defined position in the traditional education system.

Weaknesses:

Limited stimulation of the students activity, absence of some types of modern teaching aids, e.g. phantoms, due to limited resources.

Provided by:

Department of Pathophysiology LF UP, Hněvotínská 3, 775 15 Olomouc,
tel. 543 2502

6.5 CLINICAL ANATOMY OF THE HEAD AND NECK

Head: Vladimír Holibka, prof., MUDr., DrSc.

Person in school who will explain and show this to the visitors:
Vladimír Holibka, prof., MUDr., DrSc. e-mail holibka@tunw.upol.cz

Course desing:

Lectures and practical trainings are pointed to topographical anatomy of the head and neck region.

Curricular timing: 4th semester – 2nd year

Semester	Study form	Hours per semester	Hours per week
4 th semester	Lectures	30	2
	Practical training	45	3

Primary aims:

Students obtain basic information about clinical anatomy of the head and neck. There is shown to the students the relationships between theoretical knowledge of the oral cavity anatomy, head and neck anatomy and their practical application. These information are useful especially for dentoalveolar and maxillofacial surgery.

Main objectives:

Areas and spaces of the head and neck. This subject is also pointed to special areas as a gingivodental junction, or dentoalveolar topography, knowledges of which are necessary for dentists. Special point of view is given to facial fractures and head rentgenology.

Methods of teaching:

Lectures and practical trainings from topographical anatomy of the head and neck region, complemented by video-programs of "Anatomy video-atlas". Clinical demonstrations in dissection room. Head and neck radiographs.

Assessment methods:

Attendance at 14 practical trainings and 15 hours of dissection - practical trainings. Successful passing of the practical and the theoretical exam.

Strengths:

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Anatomy LF UP, Hněvotínská 3, 775 15 Olomouc. tel: 5632202

Visitors Comments

Please refer to the comments made under 5.7 page 37 which also apply to this section.

The visitors were impressed with the level of commitment shown by staff to the students of stomatology in the "Theoretical and Pre-clinical" sciences. This certainly provided a very extensive base for the subsequent study of medicine. Nevertheless, questions must be asked:

- a) Is that level of detail necessary to prepare students for a career in which they will be life long students seeking essential items of information on current developments?
- b) Is all of the detail relevant to a future stomatologist?

This is not a matter of comparing odontology with stomatology. It is a question of prioritising information and promoting learning and understanding over teaching.

Section 7 – Medical Disciplines

7.1 INTERNAL MEDICINE

Head: Vlastimil Ščudla, prof, MUDr., Ph.D.

Persons who will explain and show this to the visitors:
Assoc Prof. MUDr. H. Vaverková, PhD., vaverkovh@fnol.cz

Course design:

Lectures are aimed to patient history, physical examination, symptoms in internal medicine and basic investigative methods. The basic cardiovascular diseases and emergencies in cardiology as well as in other disciplines of internal medicine are taught. Knowledge is reviewed during practical training at the bedside and at the end of each practical training case history and physical examination of the patient are analysed.

Curricular timing: 5th – 10th semesters - 3rd – 5th year

Semesters:		Hours semester	per	Hours per week
5 th – 10 th semester	Lectures + practical training	22,5/30		1,5/30

Primary aims:

Knowledge is reviewed during practical training at the bedside and at the end of each practical training case history of the patient analysed. Students are required to provide patient case history, physical examination, to indicate investigative methods and to evaluate them by themselves. Student should be able to understand the relationships between illnesses and their symptoms. Special seminar is dedicated to demonstration of symptoms internal diseases on face and in oral cavity.

Main objectives:

To teach the theoretical principles of cardiology, hematology, nephrology, endocrinology, rheumatology, pneumology, gastroenterology and partly also of other internal disciplines (e.g. metabolic disorders, transfusiology), to formulate a working diagnosis by determining an effective diagnostic program, to evaluate clinical and laboratory data and special examination before preparing the final diagnosis, principles of developing a differential diagnostic analysis, including the design of the most effective therapy. Candidates are expected to develop a rational protocol for other auxiliary examinations which together with the case history and physical examination enable the physician to draw the right conclusions from the composite picture, and that first of all from the point of view of their future stomatological praxis.

Methods of teaching:

Lectures, seminars and practical trainings are complemented by slides, video-programs and patient examination and analyse of the case histories.

Assessment methods:

100% attendance at practical trainings and seminars is required, final state (board) exam in Internal medicine at the end of 10th semester, which consist of practical exam and an interview - exam.

Strengths:

The advantage of the education seems to be in the possibility of studying the internal medicine in the broad spectrum of disciplines and thus getting the impression of the complexity of the subject of medicine.

Weaknesses:

The weak side of the education of internal medicine is the lack of the special textbook of internal medicine for the students of dentistry. Students have to study from the same literature as the students of general medicine. This gap will be hopefully overbridged in near future.

Provided by:

3rd Internal Clinic LF UP, I.P.Pavlova 6, 775 20 Olomouc, tel. 585 2203

7.2 GENERAL SURGERY

Head: Miloslav Duda, prof., MUDr., DrSc.

Person in school who will explain and show this to the visitors:

Jaroslav Vyhnánek, ass. prof., MUDr., PhD e-mail: Jaroslav.Vyhnanek@post.cz

Course design

The course comprises basic general surgical knowledge, introduces the students to the organization of surgery (operating room, intensive care unit, etc.). The problems of special surgery are also included.

Curricular timing: 6th semesters – 3rd year, 7th and 8th semesters – 4th year - 9th and 10th semesters 5th year

Semester	Study form	Hours semester	per	Hours per week
6 th semester	seminars	30		2
7 th semester	Lectures + practical training	15/45		1/3
8 th semester	Lectures + practical training	15/45		1/3
9 th semester	Lectures + practical training	15/45		1/3
10 th semester	Seminars	30		2

Primary aims:

After completing the course, the student should be able to examine a patient for surgery, orient him/herself in the symptomatology of surgical diseases, write a case history orient themselves in paraclinical findings, assist during minor surgical procedures.

Main objectives:

General surgery, basic symptomatology of surgical diseases and the principles of physical examination. Surgical instruments, the basics of operating techniques and minor surgical procedures punctures, incisions, excisions, sutures, cannulation, etc.). Principles of dietetics, parenteral uptake, homeostatic care, monitoring of the patient. General traumatology (lesions, joint injuries, fractures, plaster technique), the problems of surgical infection (dactylitis, phlegmona, abscess, furuncle), basic principles of antibiotic treatment.

Principles of general anesthesia, resuscitation and medical first aid. Problems of thermal injuries. Basics of plastic surgery. Diagnostic and therapeutic problems of pathological conditions of the digestive tract. Traumatology of the skeleton. Abdominal emergencies (inflammatory and ileous conditions, and the surgery of profuse bleeding). Modern surgical endoscopic techniques, basic principles of replantative surgery.

Assessment methods:

State examination at the end of 10th semester, consist of questions from the general surgery, traumatology and special surgery.

Methods of teaching:

Lectures, seminars and practical trainings complemented by slides and video-programs.

Strengths:

Big interest in practical training.

Weaknesses:

Low attendance of students at the lectures.

Provided by:

2nd Clinic of Surgery LF UP, Svatoplukova 11, 775 00, Olomouc, Řepčín, tel: 411 404

7.3. DERMATOVENEREOLOGY

Head: Milan Buček, Assoc. prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:

Milan Buček, Assoc. prof., MUDr., PhD. e-mail: milan.bucek@fnol.cz

Course design :

The subject comprises a basic knowledge of general and special dermatology and venereology at the level necessary for a stomatologist..

Curricular timing: 7th semester – 4th year

Semester	Study form	Hours per semester	Hours per week
7 th semester	Lectures	15	1
	Practical training	15	1
	Seminars	15	1

Primary aims:

Practical knowledge of dermatological and venereological examination of the patient, including the correct interpretation of its results, including basic laboratory examination. Recognition of the basic and most common skin and venereal diseases, and knowledge of the basics of their treatment.

Main objectives:

The latest knowledge, particularly concerning diagnostics and treatment, in relation to the morphology and the function of the skin, parasitic diseases, pyoderma, dermatomycosis and viral infections, problematics of dermatitis and eczema, including occupational dermatoses, psoriasis and allied dermatoses, bulous diseases, disorders of blood vessels and lymphatics, problematics of connective tissue diseases, drug eruptions and urticaria, problematics of dermal naevi, genetic diseases and precanceroses, tumours and paraneoplastic dermatoses, sexually transmitted diseases, the basic venereological examination, prevention and prophylaxis of the diseases.

Methods of teaching:

In the form of seminars and practical bedside training to introduce students to basic clinical morphology and the course of the basic examination of the patient, including the basics of the dermatological treatment

Assesment methods:

Exam consisting of a practical part and an interview (general, special dermatology and venereology).

Strengths:

The possibility to acquire compact knowledges of diagnostics and treatment of the most common dermatoses with emphasis on problematics of oral cavity.

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Dermatovenerology LF UP, I.P. Pavlova 6, 775 20 Olomouc,
tel: 585 4501

7.4.

NEUROLOGY

Head: Karel Urbánek, prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:

Karel Urbánek, prof., MUDr., Ph.D.

Course design:

The subject comprises instruction in general neurological syndromology, special clinical neurology. Special emphasis is given to disorders of cranial nerves and traumatology of the head.

Curricular timing: 7th semester – 4th year

Semester	Study form	Hours per semester	Hours per week
7 th semester	Lectures	15	1
	Practical training	15	1

Primary aims:

The students will be able to evaluate and carry out urgent treatment connected with acute and paroxysmal neurological diseases, unconsciousness seizures, indicate paraclinical examinations, necessary for preparing etiological diagnosis.

Main objectives:

Neurological symptomatology and syndromology, the spectrum of organic diseases of skeletal muscles, myoneural junction, peripheral nerves, cerebral nerves and cerebral stem and brain. Individual groups of brain diseases, vascular, tumorous, traumatic, inflammatory, degenerative, demyelinating disorders. Neurological diseases and therapy. Students learn the basics of examination and logopedic treatment of organic speech disorders and higher cortical functions.

Methods of teaching:

Lectures and practical trainings complemented by videoprograms, patient case history and basic investigation and treatment.

Assessment methods:

100% attendance at practical trainings, successful passing of final computer based test, plus passing of an interview exam.

Strengths:

Weaknesses:

Provided by:

Department of Neurology LF UP, I.P. Pavlova 6, Olomouc 775 20, tel.:585 3401

7.5 MEDICAL IMMUNOLOGY

Head: Evžen Weigl, Assoc. Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:

Evžen Weigl, Ass.Prof., MUDr., Ph.D.

Course desing:

The main aim of this subject is to show to the student illnesses caused by immunological and allergical mechanisms and to acquaint the students with the most recent views to problematics of anaphylaxis and its treatment.

Curricular timing: 7th semester – 4th year

Semester	Study form	Hours per semester	Hours per week
7 th semester	Lectures	15	1
	Practical training	30	2

Primary aims:

Students acquire basic theoretical and practical knowledge from immunology and allergology at range necessary for dentists.

Main objectives:

Follow-up patient with immunological and allergic symptoms. Immunological lab diagnostics, parameters of permuniton and humoral immunity. Investigative methods in cellular immunology. Laboratory aspects of transplantation and immunomodulatory treatment. Potential of laboratory diagnostics of allergic disorders. An overview of allergological affection. Drug and nourishment allergy. Urticaria, Oedema Quincke, insect's sting allergy. Anaphylactic shock.

Methods of teaching:

Lectures and practical trainings complemented by video-programs and demonstration of laboratory investigative procedures. Work with patient.

Assessment methods:

100% attendance at practical training, credit, successful passing an interview which consist of 3 parts: theoretical immunology, clinical immunology, lab immunology.

Strengths:

Weaknesses:

The students are too focused on practical aspects. They are less interested in theoretical immunology.

Provided by:

Department of Medical Immunology LF UP, Hněvotínská 3, 775 15 Olomouc,
tel.: 5632752

7.6

PSYCHIATRY

Head: Jaroslav Bouček, Prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:
Jaroslav Bouček, Prof., MUDr., Ph.D. e-mail: jaroslav.boucek@fnol.cz

Course design

The subject offers a comprehensive overview of psychopathological manifestations in human beings, a contemporary interpretation of their origins and causes and a description of therapeutic possibilities with the goal of learning basic diagnostic. Emphasis is given to behaviour of mentally disturbed people in dental practice.

Curricular timing: 8th semester – 4th year

Semester	Study form	Hours per semester	Hours per week
5 th semester	Lectures	15	1
	Practical training	45	3

Primary aims:

By the end of the course, the student shall be able to evaluate case histories based on psychiatric knowledge. Student will be able to recognize mentally disturbed patients in dental practice and to use different forms of approaches to these patients.

Main objectives:

Development of attitudes towards mentally disturbed people in dental practice. Psychiatric care in the community. General psychopathology, description and examination. Therapeutic approaches, biological and psychological therapy (review, indications), rehabilitation. Students are acquainted with the psychology of patients in dental practice.

Methods of teaching:

Lectures and practical training complemented by video-programs, demonstration of patient examination, students outfinding of a patient.

Assessment methods:

The examination consists of a written test, practical part; where student is required to examine the patient and to deal with questions regarding an actual case history, oral examination – interview.

Strengths:

We effort to mediate a complex view into medicine problematic to dentistry students.

Weaknesses:

Attempt to reach a greater equality in dividing of students into groups for practical training.

Provided by:

Department of Psychiatry LF UP, I.P. Pavlova 6, 775 20 Olomouc, tel. 585 3503

7.7 OTORHINOLARYNGOLOGY

Head: Juraj Klačanský, Prof., MUDr., Ph.D..

Person in school who will explain and show this to the visitors:

Ivo Stárek, Assoc. Prof., MUDr. Ph.D. e-mail: stareki@fnol.cz

Course design:

Students are acquainted with the inflammatory, oncologic, developmental, degenerative and mainly infectious disorders of the head and neck region, which is common problem in treating patients. Also, the view is pointed to maxillofacial traumatology problems.

Curricular timing: 8th semester – 4th year

Semester	Study form	Hours per semester	Hours per week
8 th semester	Lectures	15	1
	Practical training	45	3

Primary aims:

Students are obtaining some basic information about nearly all disorders in otorhinolaryngology, their diagnostic and therapeutic possibilities. They are closely familiarized with problems, which can be found on the borders of ORL and dentistry. The acquired knowledges are very helpful for dental practice. Students of dentistry are able to save patient life in cases of emergency in ORL.

Main objectives:

Disorders of ala auris, middle and internal ear. Surgery of middle ear. Nose and paranasal sinus disorders. Pathogenesis of chronic sinusitis, principles and technology of endonasal surgery. Pharyngitis, inflammatory laryngitis and diseases of Waldeyer circuit. Local and general complication of tonsillitis. Affection of retro- and para-pharyngeal area. Intracranial rhino- and otogenic complication, their diagnostics and treatment. Foreign bodies in airways and upper digestive tract. Oncology disorders in ORL, their diagnostics, clinical staging, prognosis, ways of surgical treatment, actino- and chemotherapy. Disorders of salivary glands. Parotid gland surgery. Emergent ORL and therapy, differential diagnostics of suffocation. Tracheotomy, tracheostomy, conicotomy. Treatment of epistaxis. Injury of ORL organs.

Methods of teaching:

Lectures and practical training, complemented by video-records of the most important surgery in ORL. Demonstration of basic and special investigative method as well as therapeutic procedures of emergency in ORL.

Methods of teaching:

100 % attendance at practical training. Successful passing of interview, questions of which are pointed to all of ORL problems.

Strengths:

ENT surgery – video transmission from operating rooms.

Weaknesses:

Limited contact with outpatients

Provided by:

Department of Otorhinolaryngology LF UP, I.P.Pavlova 6, 775 20 Olomouc

7.8 OPTHALMOLOGY

Head: Jiří Řehák, Assoc. Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:
Klára Marešová, MUDr.

Course design:

There is a lot of common problems in dentistry and ophtalmology. Especially in facial injuries knowledges from ophtalmology are necessary.

Curricural timing: 8th semester – 4th year

Semester	Study form	Hours per semester	Hours per week
8 th semester	Lectures	15	1
	Practical training	30	2

Primary aims:

Fundamental orientation in ophtalmology, knowledge necessary for dentistry, some useful information for diferencial diagnosis of dental, internal and neurological disorders.

Main objectives:

Investigative methods, medicaments in ophtalmology, disorders of the fore and the rear segment of the eye, accessory organs of the eye, orbit and connection with a group of maxillofacial disorders, cataract, glaucoma, basic of traumatology, first-aid treatment in ophtalmology, surgical procedures. Old patient disorders, eye diseases and general disorders, eye refractive mistakes and correction.

Methods of teaching:

Lectures and practical trainings with demonstration of patients. Basic and special methods of investigation, demonstration of operation in operation room.

Assessment methods:

100 % of attendance in practical trainings, successful passing of the ophtalmology exam.

Strengths:

A low number of students enable an individual approach.

Weaknesses:

There is no special textbook of ophtalmolgy for students of dentistry.

Provided by:

Department of Ophthalmology LF UP, I. P. Pavlova 6, 775 200, Olomouc, tel. 5854202

7.9

INFECTIOUS DISEASES

Head: Mirela Vařeková, prim., MUDr.

Person in the school who will explain and show it to the visitors:

Dagmar Hauftová, Prof., MUDr., Ph.D.

Course desing:

There is taught in this subject infectious diseases important for dentists, the recognition and protection, groundwork of antibiotics use.

Curricular timing: 9th semester – 5th year

Semester	Study form	Hours per semester	Hours per week
8 th semester	Seminars	7,5	0,5
	Practical training	7,5	0,5

Primary aims:

The purpose is understanding and prevention of the infectious illnesses important for dentist. There is shown to the student the infectious department and difference in hygiene - epidemiology regime, compare to the others hospital facilities.

Main objectives:

Infectious illnesses with clinical manifestation in head and neck area, infectious diseases in which dentist is endanger through his occupation. Etiological agenses, epidemiology, clinical manifestation, laboratory findings, diagnosis, differential diagnosis, prevention and therapy, are set namely to streptococcus and staphylococcus infections, tetanus and lymes borreliosis, out of virial infection on infectious mononucleosis, infection caused by cytomegalovirus, herpes - virus, manifestation of infection caused by HIV in oral cavity, viral infection of respiratory tract, viral hepatitis, neuroinfections caused by viruses and bacterias and at last, to intestinal infection viral and bacillary origin.

Methods of teaching:

Lectures and seminars, completed by visual documentation, demonstration of patients at the Dept. of Infectious Diseases.

Assessment methods:

Successful passing of the exam (interview).

Strengths:

Weaknesses:

Faculty Hospital has no specialized derpartment of infectious diseases. For practical training students must be transported out of Olomouc.

Provided by:

Regional Hospital, Department of Infectious Diseases, Zborovská 1245, 753 01 Hranice na Moravě , tel. 0642/201764

7.10 RADIOLOGY AND NUCLEAR MEDICINE

Head: Josef Nekula, Prof. MUDr., PhD.

Person in school who will explain and show this to the visitors:
Miroslav Herman, Assoc. prof., MUDr., PhD. e-mail herman@fnol.cz

Course design:

Radiology concerns itself with methods and interpretation of classical radiodiagnostics, CT, magnetic resonance imaging and ultrasonography. Nuclear Medicine acquaints the student with the basics of detection by radiation, radiopharmacology, biological consequences, protection from radiation, examination in vivo, introduction to the problematics of the basics of treatment of several malignant and benign illnesses.

Curricular timing: 10th semester – 5th year

Semester	Study form	Hours per semester	Hours per week
10 th semester	Lectures	15	1
	Practical training	30	2

Primary aims:

Radiology: principles and information on indications of different imaging methods and interventional techniques, report and evaluation of results of radiological investigations. Nuclear Medicine: basic principles of nuclear medicine, indication and practical value of single methods in clinical practice. Role of radiotherapy in the complex treatment of malignant diseases.

Main objective:

The nature and characteristics of X - rays, their influence to the organism; contrasting media, basic and special radiological methods (plane films, tomography, angiography (including DSA), computed tomography (CT), ultrasonography, magnetic resonance (MRI, MRA, MRS) and special methods of interventional radiology, e.g. endovascular treatment of tumors and vascular malformations. There are named and explained all imaging methods with a view to dentistry and maxillofacial traumatology. Physical characteristics of radionuclides, interactions of ionizing radiation with matter, the basics of radiation detection, imaging devices, the basis of radiopharmacology, the biological effects of ionizing radiation, radiation protection. Methods in nuclear medicine used for the diagnostic of inflammation and tumors. The methods, evaluation, interpretation of the findings and indications are explained. The relationship between nuclear medicine diagnostic procedures and other imaging procedures in radiology, the role of radionuclides in diagnostic algorithms. The basic therapeutical principles of the malignant and benign diseases with the use of radiopharmaceuticals.

Methods of teaching:

Lectures and practical trainings complemented by analyses of X-ray pictures and others imaging methods. General problematics of clinical oncology.

Assesment methods:

An exam – interview, questions of which consists of radiology, oncology and nuclear medicine problematics.

Strengths:

Students are well informed about the whole problem of radiology and radiotherapy .

Weaknesses:

Details of stomatological problems are out of the scope of radiology teachers (taught within the of special dental disciplines).

Provided by:

Department of Radiology, I.P.Pavlova 6, 775 20 Olomouc.
Department of Oncology, I.P.Pavlova 6, 775 20 Olomouc

7.11 FORENSIC MEDICINE

Head: Alois Kosatík, Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:
Ladislav Srp, MUDr., Ph.D. e-mail: alenakem@tunw.upol.cz

Course desing:

This course is pointed to forensic medicine, medical law for dentist and doctors in general and to co-operation of physicians, investigators and attorneys.

Curricular timing: 9th semester – 5th year

Semester	Study form	Hours per semester	Hours per week
9 th semester	Lectures	15	1
	Practical training	30	2

Primary aims:

Student are obtaining fundamental knowledges about forensic medicine. This subject explains to the student medical findings and deducated conclusions for findings of another medical disciplines. Students are acquaint with basic medical law with special intent on dentistry.

Main objectives:

Juridical responsibility of medical stuff. Medicojudical judge. Sudden and violent death (traffic and other injury, violation by mechanical force, suffocation, torment child). Basic clinical and medicojudical toxicology. Drunkenness, compensation for pain and aggravation of social use. Some toxicological and serological investigative methods. Toximania in sight of forensic medicine.

Methods of teaching:

Lectures and practical trainings complemented by video-programs, slides of pathomorfological findings and interesting cases with a view to dentistry and some toxicological and serological investigative methods.

Assessment methods:

100 % attendance on practical training, successful passing of partial rigorous exam.

Strengths:

Weaknesses:

Small attendance at lectures.

Provided by:

Department of Forensic Medicine and Medical Law LF UP, Hněvotínská 3,
775 09 Olomouc, tel. 5632601.

7.12 EPIDEMIOLOGY

Head: Vladimír Janout, Prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:
Vladimír Janout, prof., MUDr., PhD e-mail: janout@tunw.upol.cz

Course design

The course includes epidemiological methodology, epidemiology of chronic diseases, epidemiology of infectious diseases, environmental epidemiology and the basic of hygiene, with a special point of view to dental practice.

Curricular timing: 9th semester – 5th year

Semester	Study form	Hours per semester	Hours per week
9 th semester	Lectures	15	1
	Seminars	45	3

Primary aims:

By the end of the course, the student should be able to recognize the importance of the population approach in the study of health disorders in the population, carry out a simple epidemiological study, understand scientific medical literature, participate in different levels of prevention of both infectious and chronic non-infectious diseases. Students will have basic knowledge about hygiene in dental practice and will know the laws important for prevention of hospital acquired infections in dental practice.

Main objectives:

Epidemiological methodology Introduction, definition and uses of epidemiology. Measures of disease frequency, measures of association. Diagnostic test validity, screening. Descriptive studies. Case-control studies. Cohort studies. Intervention studies. Epidemiology of chronic diseases Epidemiology of cardiovascular diseases. Epidemiology of cancer. Injury epidemiology. Epidemiology of allergy. Epidemiology of metabolic diseases. Life style risk factors (nutrition, smoking, alcohol). Physical activity in relation to health. Epidemiology of infectious diseases Vaccination. Hospital infections. Infectious disease morbidity in the Czech republic. Legislative basics of prevention. Environmental epidemiology Environmental risk factors. Occupational risk factors. Hygiene in dental practice, kinds of disinfection and sterilization.

Methods of teaching:

Lectures and seminars complemented by slides.

Assessment methods:

100% attendance in seminars, an interview-exam at the end of 10th semester.

Strengths:

Small groups, high personal interest of students.

Weaknesses:

Small number of contact hours to cover the broad spectrum of the epidemiology discipline.

Provided by:

Department of Epidemiology LF UP, Hněvotínská 3, 775 20 Olomouc, tel: 5632652

7.13 GYNAECOLOGY AND OBSTETRICS

Head: Milan Kudela, Prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:

Ivana Oborná, MUDr., Ph.D., e-mail: obornai@fnol.cz

Course design:

Includes relevant questions of physiological and pathological pregnancy and gynecology.

Curricular timing: 10th semester – 5th year

Semester	Study form	Hours per semester	Hours per week
10 th semester	Lectures	30	2
	Practical training	30	2

Primary aims:

After completing of the course, the student will have a command of obstetric examination, management of spontaneous labour, management of abnormal pregnancy, labour and puerperium, gynecologic examination, management of gynecological disorders, surgical procedures in gynecology and obstetrics.

Main objectives:

Development and anatomy of the female reproductive system, ovarian cycle and gynecological endocrinology, physiology and disorders of human reproduction, gynecological examination, menstrual cycle disorders, pelvic inflammatory diseases. Contraception and family planning, malignant and benign genital tumours, ectopic pregnancy and emergencies in gynecology. Physiological pregnancy, fetal development. Physiological changes in the organism of pregnant women, abortion, obstetric examination, spontaneous labour, mechanism of delivery, breech delivery, abnormal labour, obstetric procedures, antepartum and postpartum hemorrhage, normal and abnormal puerperium, multiple pregnancy, antenatal care, high risk pregnancy, maternal and perinatal mortality, neonatal care, prenatal diagnostics and fetal medicine.

Methods of teaching:

Lectures and practical trainings complemented by audiovisual programs, slides. Patient investigation, attendance and assistance at delivery, attendance at some gynecological procedures.

Assessment method:

100% attendance at practical trainings, successful passing of an exam.

Strengths:

Years of experience with teaching stomatology students.

Weaknesses:

Limited premises and patient numbers available for often parallel teaching of different courses (general medicine, stomatology, rehabilitation, patient care, etc.)

Provided by:

Department of Gynaecology and Obstetrics LF UP, I.P. Pavlova 6, 775 20 Olomouc
tel.:585 4103

7.14

PEDIATRICS

Head: Vladimír Mihál, Assoc. prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:

Vladimír Mihál, ass. prof., MUDr., PhD e-mail: vladimir.mihal@fnol.cz

Course design:

The course covers of common pediatric complaints, special clinical pediatrics, and emergency medical conditions in children up to the age of 18 years.

Curricular timing: 9th semester – 5th year

Semester	Study form	Hours per semester	Hours per week
9 th semester	Lectures	15	1
	Practical training	30	2
	Seminars	15	1

Primary aims:

At the end of the course, the student shall be able to conduct independent medical examinations in children, assess their somatic, psychomotor and social development, differentiate common illness by physical examination, interpret results of laboratory tests. The student will also be able to prepare a written case report.

Main objectives:

Individual characteristics of each developmental stage, somatic, psychomotoric, social. Basic physical examination of children. Growth and development, developmental assessment and biologic variation. Nutrition nutritional requirements, feeding of infants and children. The newborn infant, physical examination, clinical manifestation of diseases in the newborn infant, high - risk pregnancy, high - risk newborn infant. Spectrum of illnesses in children, symptomatology, investigation techniques, diagnosis, differential diagnosis and treatment. Emergency medical conditions in children. Aspiration, foreign body in esophagus. Acute incident of digestive tract congenital anomalies, acute appendicitis, ileus. Toxic dehydration, burns and poisoning.

Methods of teaching:

Lectures and tutorials, both forms of parallel teaching being conducted using videoprojection, multimedia pediatric programs - HyperMed Pediatrics, OP,, slides and authentic demonstration on pediatric patients.

Assessment methods:

The examination is divided into three parts. A practical exam, a written examination and an interview.

Strengths:

Weaknesses:

Provided by:

Department of Pediatrics LF UP, I.P.Pavlova 6, 775 20 Olomouc, tel.: 585 4403

7.15 SOCIAL MEDICINE AND HEALTH POLICY

Head: Ivan Gladkij, Prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:
Ivan Gladkij, prof., MUDr., PhD e-mail: gladkij@tunw.upol.cz

Course desing:

The aim of this subject is to understand the basic of health policy, to acquaint with basic conception of health and diseases, to acquiant with health insurance policy, with different health care systems in different countries.

Curricular timing: 10th semester – 5th year

Semester	Study form	Hours per semester	Hours per week
9 th semester	Lectures	15	1
	seminars	15	1

Primary aims:

The aim of this subject is to understand the basic of health policy. To acquaint with basic conception of health and diseases and with health state of our population, including its determinants. To understand the effectiveness and efficiency of health care. To acquaint with principal forms of international co-operation in health care. To obtain basic knowledge of assessing of working capacity. To be familiar with international classification of diseases.

Main objectives:

Health care policy and its principles, health care systems and their functioning. Biological and social conditionality of health and diseases, determinants of health status of the population. Demography and its role in health care policy. Effectiveness and quality of health care. Basics of managerial processes and skills. Basics of health care economics and financing, health and social insurance. Assessing of working capacity and its legal prerequisites. International co-operation and the role of WHO. International classification of diseases and its usage in practice.

Assessment methods:

100% attendance and activity in seminars, successful passing of the exam.

Strengths:

Students are interested in these topics as they feel them useful for their practice. They use to be well prepared to the examination.

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Social Medicine and Health Care Policy LF UP, Hněvotínská 3,
775 15 Olomouc, tel.:563 2702

Visitors Comments:

Please refer to the comments made under 5.7 page 37 and Section 6.5 page 43 which also apply to this section.

The visitors were impressed with the level of commitment shown by staff to the students of stomatology in the "Theoretical and Pre-clinical" sciences.

This aspect of the programme was a source of considerable discussion, debate and of enormous interest in the potential extension of the EU to embrace more countries including the Czech Republic. There have been criticisms of the stomatological approach in other countries and within the EU there has been a definite move away from stomatology perhaps for historical reasons that some stomatological institutes did not place sufficient emphasis on clinical dental skills. These general comments on stomatology and odontology are presented on pages 11 – 13.

The staff and students argued in a cogent and persuasive manner that the stomatological approach is entirely compatible with high standards in clinical dentistry and the acquisition of those clinical competences set down by the EU Advisory Committee on the Training of Dental Practitioners. Although there was no explicit references to the EU competences, the visitors accept that view in the context of theoretical knowledge but questioned the students competences in routine dentistry such as restorative treatment. There was insufficient evidence of students illustrating treatments which they themselves had completed particularly in the context of integrated care. The Visitors witnessed extensive levels of treatment in many departments but frequently student were observers or assistants as opposed to providers of basic dental care.

In the first section of the report there is a reference to the need to identify priorities and co-ordinate the curriculum content between departments. Listing subject headings is not sufficient to clarify objectives and outcomes. Also there are elements of the medical course with particular relevance to stomatologists which need to be highlighted.

Section 8 – Preclinical Dentistry

8.1 PRECLINICAL DENTISTRY

Course head: Miroslav Eber, Prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:
Joseph Sheety, MUDr. e-mail: sheetyj@stomanw.upol.cz

Course desing :

This course is the first one, when dental students acquaint with the general dentistry. Students gain a general overview in dentistry. They use the knowledge from this subject for consecutive study.

Curricular timing: 2nd semester - 1st year
3rd and 4th semesters - 2nd year
5th semester - 3rd year

Semester	Study form	Hours semester	per	Hours per week
2 nd semester	Lectures + practical training	15/30		1/2
3 rd semester	Lectures + practical training	15/45		1/3
4 th semester	Lectures + practical training	15/105		1/7
5 th semester	Lectures + practical training	15/60		1/4

Primary aims:

The main aim of this course is to acquaint students with dental tools and equipments, various types of preparation for different filling materials, preparation for crowns and bridges. Practical training in the procedures of restorative dentistry on instructional phantoms. Basic of dental X-ray technique.

Main objectives:

Morphology of the oral cavities and their development, teething of the human teeth. Drawing and modeling of individual teeth and groups of teeth, examination of patients and dental documentation. Further then the mastery of the basic of restorative dentistry, Techniques for the preparation of study models. Pathological defects of the hard dental tissues, basic principles of endodontics. Temporary and definitive filling materials, used in dentistry, their composition, preparation in the office and utilization in practice. Office and laboratory phases of preparation of fixed dentures (crowns of various material). Office and laboratory phase of the full denture. Evaluation of anatomical structures of oral cavity from the prosthetic point of view, training in impression techniques, preparation of work models.

Assessment methods:

Successful passing of the exam.

Methods of teaching:

Lectures and practical trainings complemented by slides and video-programs, practical training in the procedures of restorative dentistry on instructional phantoms.

Strengths:

Weaknesses:

No weaknesses known at this time

Provided by:

2nd Clinic of Stomatology LF UP, Palackého 12., 775 20 Olomouc

Preclinical Dentistry

Lecture Syllabus

2nd semester

1. Morphology of the Oral Cavity. Topographic Teeth Distribution. Latin Nomenclature. Teeth identification symbols. Central and Lateral Incisor Morphology.
2. Morphology of the Lower Frontal Section. Canine and Bicuspid Morphology.
3. Molar Morphology.
4. Teeth Evolution and Eruption. First and Second Dentition.
5. Impressions and Models.
6. Patient Checkup, Documentation, Elementary Basis of tooth Preparation.
7. Dental Instruments. High and Low-speed Pieces.

3rd semester

1. Pathologic defects of the teeth. Basics of cavity preparation. Simple caries treatment. Cavity varnishes and liners.
2. Definitive and temporary restorative materials:
a) Amalgam b) Glassionomers c) Composites.
3. Caries in depressions and fissures and on tooth necks.
4. Caries in the proximal areas of bicuspid and molars.
5. Caries in the proximal areas of incisors and canines.
6. Metal inlays. Direct condensed restorations.
7. Composite and ceramic inlays. CAD CAM fabricated restorations.

4th semester

1. Basics of Endodontics.
2. Crowns and Bridges- Classification. Inlays and Onlays.
3. Crowns and Bridges- Preparation. Impressions and Models
4. Full Crown Fabrication in Laboratory. Investment Materials
5. Plastic and Ceramic Crowns
6. Dental Alloys.
7. Crown Facing. Plastics, Ceramics and their Bonding to Alloys

5th semester

1. Basics of gnathology important for complete denture fabricating
2. Cast reproduction of main shapes in edentulous ridge. Complete denture.
3. Composite materials for facing, composite bonding to metal.
4. Complete denture: laboratory fabrication.
5. Fixed prosthesis.
6. Retainers and pontics.
7. Fixed prosthesis. Laboratory fabrication.

Visitors Comments

The visitors recognise that all the essential elements are provided in the laboratories and especially the clinics which have recently been renovated with state-of-the-art equipment as modern and well kept as any in Europe. It was difficult to make an accurate assessment of what students actually achieve. There was a set of clinical requirements which students had to complete. Students answers to the competences questionnaire would infer that at the beginning of their 6th year that they actually had achieved most and some students all of the competences set as guidelines by the Advisory Committee. There were some differences in interpretation. As a number of students identified competences in simple orthodontic appliance therapy which their Head of Department clearly identified as not being possible it seemed to the visitors that students interpretation of their competences was not as apparent to the Visitors as might be their experience in EU schools.

One of the considerable advantages appeared to be the level of student supervision but this also could also mitigate the student completing a course of treatment for a patient from start to finish. This is not a criticism of the course but the view of the visitors was that it would be very constructive for the training programme if students could undertake comprehensive patient care and assume a more active role in the initiation and completion of all elements of primary dental care.

The comments in respect of cross infection control (see page 17) also apply here.

Section 9 – Orthodontics and Child Dental Health

9.1 ORTHODONTICS

Head: Milan Kamínek, Prof., MUDr., DrSc.

Person in school who will explain and show this to the visitors:

Milan Kamínek, prof., MUDr., DrSc. e-mail: kaminek@stomanw.upol.cz

Course desing:

The significance and goal of orthodontic treatment. Irregularities in the positioning of individual teeth, groups of teeth, occlusal and skeletal diagnostics. Examination of orthodontic patients, analysis of models, cephalometric analysis, determination of skeletal age.

Curricular timing: 9th semester – 5th year
10nd semester – 5th year
11rd semester – 6th year

Semester	Study form	Hours per semester	Hours per week
9 th semester	Lectures	15	1
9 th semester	Practical training	30	2
10 th semester	Practical training	45	3
11 th semester	Practical training	45	3

Primary aims:

Students are acquainted with diagnostic and therapeutic approaches in orthodontics to the extent essential for the practical dentist who will co-operate with an orthodontic specialist. Students will have basic knowledge about establishment of the treatment plan in orthodontics.

Main objectives:

Growth changes of the jaws, development of dental arches, application of the knowledge of growth patterns and development in orthodontic treatment. Suitable age of the patient for treatment of common anomalies. Main therapeutical methods in orthodontics. Parodontal changes during an orthodontic treatment. Retention of orthodontic treatment results and relapse. Indication for extraction in orthodontics. Diagnostics and treatment of Angle II, 1st division type malocclusion, frontal crossbite crowding of the teeth, impacted teeth, deep and open bite. Orthodontic-surgical co-operation in therapy in orthognatic surgery. Types and parts of fixed and removable orthodontic appliances.

Methods of teaching:

Lectures and practical trainings complemented by slides.

Assessment methods:

Successful passing of the state exam together with prosthetic dentistry.

Strengths:

Weaknesses:

Limited amount of practical training hours (moreover 1 teaching hour = 45 minutes). Practical training is irregularly placed during the year, so that students can not follow the treatment of the same patients.

Provided by:

2nd Clinic of Stomatology LF UP Olomouc, Palackého 12, 775 20 Olomouc

Visitors Comments

Orthodontics, like Oral and Maxillo-facial surgery, was a well organised department with recognised international standing. The emphasis was on specialist education with less emphasis on students achieving competence in basic orthodontic treatment. There was considerable admiration for the structure and administration of orthodontics although the consensus of the visitors was that in a country like the Czech Republic more consideration might be given to increasing competence in basic orthodontic for students and to address the inevitable demand for orthodontic treatment in the future.

In the United States more than 60 per cent of orthodontic treatment is provided by general practitioners. Exclusivity of service delivery by specialists may not be the most realistic approach in answering the enormous and increasing demands for orthodontic treatment. At the same time the visitors recognise the need to avoid the problems of inadequate standards of orthodontic diagnoses and treatments.

The comments in respect of cross infection control are relevant to this clinic (see page 17).

The leadership and senior staff in this department are to be commended for their dedication to implementing change and monitoring quality of service.

9.1.1. ORTHODONTIC COOPERATION IN ESTHETIC PROBLEMS OF THE FRONTAL PARTS OF THE DENTITION

(non-mandatory subject).

Head: Milan Kamínek, Prof. MUDr., Dr.Sc.

Person in school who will explain and show it to the visitors:

Milan Kamínek, Prof. MUDr., Dr.Sc.

Curricular timing: 11th semester, 6th year

Semester	Study form	Hours per week
11 th	Seminars	6

Content:

General rules of the esthetics of the frontal part of dentition, orthodontic possibilities for solution of problems in this area. Planning of orthodontic treatment, esthetics of face profile. Bolton's index, overbite, torque, dentoalveolar compensational mechanism. The shape of the upper and lower frontal teeth. Orthodontic solution of gaps in the frontal section of a set of the teeth in the case of young people. Impacted upper incisors and cuspids, luxation of the upper incisors, aplasia of the lateral incisors. Adhesive bridges. Preprosthetic orthodontic treatment in adults, principles of orthodontic treatment before implantation.

Assessment methods:

Final discussion

Provided by: 2nd Clinic of Stomatology LF UP, Palackého 12, 770 00 Olomouc

Visitors Comments

This course should be included in basic course for all students as it covers some fundamental concepts.

9.2. CHILD DENTAL HEALTH

Head: Sylvia Fialová, Assoc. Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:

Sylvia Fialová, Assoc. Prof., MUDr., Ph.D. e-mail: sylvafia@stomanw.upol.cz

Course desing :

Clinical aspects of growth and development of dentition, including pathology. Principles of dental decay treatment in primary teeth and permanent teeth with wide – open apices. The management of injuries, periodontal diseases in children.

Curricular timing: 8th semester – 4th year
9th and 10th semester – 5th year
11th and 12th semester - 6th year

Semester	Study form	Hours per semester	Hours per week
8 th semester	Lectures + seminars	15	1
9 th semester	Practical training	45	3
10 th semester	Practical training	15	1
11 th semester	Practical training	45	3
11 th semester	Seminars	22,5	1,5
12 th semester	Practical training	30	2

Primary aims:

The choice of treatment methods and filling materials with regard to use. Endodontic treatment of primary teeth and permanent teeth with wide – open apices; possibility and limits. Injuries of primary and permanent dentition, diagnostic and therapeutic essentials. Principles for prosthetic treatment in children. Periodontal diseases in childhood.

Main objectives:

Complex oral examination of children, including x-ray and evaluation of OPG. Training in communication with children in dental office, practical application of knowledge of the subjects of preventive dentistry, checking oral hygiene, motivation to home care, indications and carrying out of tasks of professional oral hygiene and expert preventive operations, articulation and surface repair of fillings; fissure sealing. Diagnosis and treatment of uncomplicated caries of primary and permanent teeth. Management of superficial caries lesions, remineralization, minimal interventions, preventive fillings, traditional preparation. Indications for amalgam and alternative filling materials. Anesthesia and sedation in children. Extraction of teeth. Developmental irregularities in teeth eruption, prevention and treatment. Injuries of child's teeth – prevention, treatment, early and late complications. Indications and method of prosthetics management of children. Preventive aspects of treatment according to age. Esthetics dentistry in children.

Methods of teaching:

Lectures and seminars, microlectures at practical exercise; practical training with patients.

Assessment methods:

Regular check up of knowledge during practical exercises fulfilment of minimal limits for therapeutic procedures, examination in 9th semester. State exam as a part of state exam of „therapeutical stomatology.“

Strengths: Good equipment of working places for every student.

Weaknesses:

High number of patient with special problems, difficult to treat by students.

Provided by:

1st Clinic of Stomatology LF UP, Palackého 12, Olomouc 775 20

Child Dental Health

Syllabuses of lectures, seminars and practical training

8th semester

Lectures:

- 1] Introduction to pediatric dentistry. Deciduous dentition , teeth eruption, timing, complications, disorders. Dental caries – epidemiology, progression, special types of decay in primary teeth, methods of cavity preparation [for amalgam and alternative materials], filling materials.
- 2] Permanent teeth – eruption [timing, disorders, complications], teeth with wide open apices - methods of caries treatment [technic of minimal intervention, remineralization means , fissure sealants, preventive filling]. Filling materials.
- 3] Endodontics in primary dentition. Anatomy of pulp chamber, changes in pulp tissue in relation with aging, criteria for pulp diagnosis. Deep caries – methods of treatment. Pulpitis – reasons for endodontic treatment or extraction, methods of endodontic treatment in primary dentition. Root canal treatment - indication and contraindication.
- 4] Endodontic treatment in teeth with wide open apices – the properties of pulp tissue, treatment of deep caries – pulpotomy, apexogenesis, apexification – description of methods employed, healing of open apex, long – term prognosis.
- 5] Injury to the hard dental tissue and pulp– classification. Fractures of dental hard tissues, examination, methods of treatment, sequelae and complications.
- 6] Injury to the periodontal tissue , bone and mucosa - examination, methods of treatment, complications and possible sequelae.
- 7] Principles of children’s prosthetic treatment. The diseases of oral mucosa in children.

9th semester

Practical training:

- 1] Admission check up oral exam, radiography in pediatric dentistry, intraoral and panoramic examination , indication and interpretation.
- 2] Complex child examination in dentistry, the duty and scope of pediatrician dentist.
- 3] Prophylaxis of dental decay, the possibility and the manner of the initial caries lesion treatment.
- 4] Fissure sealing to primary and permanent teeth.
- 5] Preventive filling - indication, performance, filling materials.
- 6] Decay of primary dentition, progression, methods of treatment, filling materials.
- 7] Endodontic treatment of primary teeth – indication and methods, when and how to treat.

10th semester

Practical training

- 1] The teeth with wide open apices- characteristics, apexogenesis. Technic of cavity preparation, the risk of pulp damage.
- 2] The teeth with wide open apices – the treatment of caries, pulp capping – indication, pulpotomy [partial, coronal].

- 3] Pulpitis of tooth with wide open apex - treatment, apexification – step by step technic, employed materials.
- 4] Conservative – surgical treatment of teeth with open apices, indication for extraction.
- 5] Injury of teeth in children – first aid.
- 6] Injury of teeth in children – late complications.
- 7] Composites, compomers and glass-ionomer cements - in pediatric dentistry.

11th semester

Seminars

- 1] Oral and dental problems of handicaped children.
- 2] Eruption disorders of deciduous and permanent dentition.
- 3] Fractures of dental hard tissues in children.
- 4] Luxation injuries – subluxation, luxation, intrusive luxation etc.].
- 5] Why and how to treat the deciduous teeth [endodontic treatment inclusive].
- 6] The developmental disorders of dental hard tissues.
- 7] The considerations of children up to 3 yers of age,[examination, prevention of dental decay and injuries, managemnt of teeth injuries, frequent congenital syndromes].
- 8] Essentials of prosthetic treatment in children.
- 9] The treatmnet of primary dentition in age group of 3-6 yers ,[examination, treatment plan, the sequelae of premature loss of primary teeth, suitable filling materials].
- 10] Permanent teeth with wide open apices [characteristics, treatment , endodontics inclusive].
- 11] Management of adolescent patient [examination, treatment planning, prevention of caries and periodontal diseases, TMJ disorders, prevention of sport injuries, mouth protectors.

Practical training

- 1] Prevention and consequences of premature loss of deciduous teeth.
- 2] Indication for extraction in primary and permanent dentition.
- 3] Periodontal disease in children, classification, diagnosis, prevention and treatment.
- 4] Filling materials in dentistry for children.
- 5] Prediction of caries experience in children.
- 6] Differential diagnosis of pain in orofacial region. Lymphadenitis in children

12th semester

Seminars:

- 1] Distinct features of dental care in different age groups.
- 2] Conception of preventive programmes in children at risk.
- 3] Repetition.

9..2.1 DENTOALVEOLAR AND MUCOGINGIVAL SURGERY IN PAEDODONTICS AND PERIODONTOLOGY

(non- mandatory subject)

Head: Jitka Stejskalová, Assoc.Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:

Martin Starosta, MUDr., PhD.

Curricular timing: 11th semester - 6th year

Semester	Study form	Hours per semester
11 th	Practical training	10

Main objectives:

Complications of temporary tooth injuries, surgical treatment of dental decay complications in children, tooth retention – etiology, development, diagnostics, therapeutic possibilities, interdisciplinary cooperation with orthodontists. Problematics of lip frenulum. Retention cysts of the small salivary glands (embryology, histology and morphology), diagnostics, therapeutic possibilities and the correct timing of therapy in children. Reconstruction surgical therapy of periodontitis.

Assessment methods: Final Discussion

Provided by:

1st Clinic of Stomatology LF UP, Palackého 12, 770 00 Olomouc

Visitors Comments

Visitors Comments

The visitors were impressed with the quality of the environment and the skillful administration of this department. The comments in respect of cross infection control are relevant to this clinic (see page 17).

Although the visitors were appraised of the reasons for not using local anaesthesia in the prevailing culture and their views may well be influenced by their own values, nevertheless they strongly advocate a discussion and debate on the relative merits of local anaesthesia in the course of procedures which cause discomfort including restorative treatments beyond enamel tissue. The fear of a hypodermic syringe could be an historical artifact now superseded by the application of virtually painless local anaesthesia.

Visitors were not appraised of a comprehensive approach to patient care especially from the application of fundamental principles of prevention to integrated treatment of the child patient.

All of the essential infrastructure and expertise is in place to implement a programme which would serve as a reference source on international repute especially in the context of those countries with stomatological programmes.

The visitors were impressed with the quality of the environment and the skillful administration of this department. The senior staff are be comended on their dedication to implement the highest standards in patient care and student training.

There was concern about the evidence base for periodontal surgery in paediatric patients such as frenectomies. It was also felt that there were elements of this course which should be integrated with paediatric dentistry for all students.

The comments in respect of cross infection control (page 17) should be considered.

Section 10 – Preventive Dentistry

10.1

PREVENTIVE DENTISTRY

Course head: Sylvia Fialová, Assoc. Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:

Sylvia Fialová, Assoc. Prof., MUDr., Ph.D. e-mail: sylvafia@stomanw.upol.cz

Course design:

Students are taught the essentials for acquire and maintain of oral health and relationship of oral and general health.

Curricular timing: 6th and 7th semester – 3rd and 4th year

Semester	Study form	Hours per semester	Hours per week
6 th semester	Lectures	15	1
	Practical training	15	1
7 th semester	Seminary	15	1
	Practical training	15	1

Primary aims:

Students are given basic knowledge in prevention of dental decay and periodontal diseases. Practically they learn dental examination including the use of hygienic and periodontal indices. They are trained to give the basic prophylactic procedures.

Main objectives:

Dental plaque - its accumulation and metabolism, calculus. Etiopathological relationships between dental plaque, calculus and adult periodontitis. Defensive mechanisms of dental tissues. Methodology of prevention and prophylaxis of the dental decay and periodontitis. Principles and methods of educating and motivating the patient, promotion of selfcare. Practical use of dental care products, and dental instruments. Practical training in use of instruments to remove plaque and calculus on the head phantom and in the oral cavity. Complex examination of the dentition, evaluation of the decay level, evaluation of the oral cavity hygiene and the condition of the periodontium with the help of standard indices.

Fluoride in the prevention of dental decay, toxicology, methods of use, effectiveness. Nutrition and its relates to dental decay and diseases of the periodontium, dietetic counselling. The forming of individual and collective prevention programmes. Integration of preventive aspects into the methods of decay treatment and endodontic treatment. Groups and individuals with a high risk of dental decay, methods of risk determination. X-ray examination, development of film, interpretation of X-ray picture. The rule of hygienic operation in dental practice.

Methods of teaching:

Lectures and seminars, practical training on head-phantoms and with patients.

Assesment methods:

Regular check up, fulfilment of minimal limits for practical procedures, passing the exam.

Strengths:

Good equipment of working places for every student.

Weaknesses:

Low number of exercises.

Provided by: 1st Clinic of Stomatology, Palackého 12, 772 00 Olomouc

Preventive Dentistry

Syllabuses of lectures, seminars and practical training

6th semester

Lectures:

- 1] Dental hard tissues, properties, defence mechanisms of oral environment, saliva.
- 2] Microbial dental plaque, composition, metabolism, the role in initiation of dental caries.
- 3] The role of dental plaque in etiopathology of periodontal diseases, calculus, clinical examination and evaluation of plaque accumulation level.
- 4] Prevention – primary, secondary and tertiary, prophylaxis
- 5] Oral hygiene –practical and theoretical principles.
- 6] Means and methods for professional control of dental plaque and calculus.
- 7] Fluoride in prevention of dental decay - intake, metabolism, toxicity, principles of action mechanisms in decay reducing effect.

Seminars:

- 1] Demonstration of dental unit, instruments for examination, instruments for scaling and polishing. Practical training of scaling on metal ball model.
- 2] Examination of teeth, symbols for dental status, training of examination on phantom head, indices of dental caries, oral hygiene, CPITN examination. Practical training on metal ball model.
- 3] Clinical examination of oral cavity- students each other, record of examination, principles of ergonomic system of work.
- 4] Means for home care,[teeth brushes, dental floss, dental creams and rinses, proxabrushes, tapes ec.], motivation and education of patient, demonstration of tooth brushing methods on model, practical training with patient.
- 5] Plaque control – use of disclosing agents, each other, record of indices - OHI-S, PBI, CPITN, scaling and polishing each other.
- 6] Intra – oral radiography, developing of x-ray film, bite-wing projection, polishing of fillings, topical application of fluoride.
- 7] Principles of communication with patient, motivation.
Check – up test.

7th semester

Practical training:

Department of operative dentistry: communication, motivation, examination of patient, education to oral hygiene, improvement of natural and iatrogenic retention places-prevention of plaque accumulation.

Department of periodontics: complex examination, scaling - manual and ultrasonic, education and control to oral hygiene.

Department of pediatric dentistry: oral examination of child, motivation and education to home care, topical fluorides, determination of caries risk [saliva pH, bacterial tests], fissure sealing.

Seminars:

- 1] Fluoride in prevention of dental decay – systemic and topical methods of use. Effectivity.
- 2] Diet analysis and advice in prevention of dental caries.
- 3] Preventive programmes - individual and collective.
- 4] Preventive aspects of dental decay treatment, management of patients at risk
- 5] Radiography in preventive dentistry, indication, choice of projection, interpretation.
- 6] Preventive aspects of dentists practice. Check up test.

Visitors Comments

Fluoridation of water supplies no longer applies. This is regrettable especially in the context of the extensive nature of dental caries experienced by some of the patients who were seen by the Visitors. In discussion we were advised that preventive dentistry does not have the same degree of importance as other disciplines. If this is the case the situation deserves the most serious consideration. If preventive strategies are not to be an integral part of the stomatological programme the training in Olomouc might lose international credibility and certainly could be questioned in respect of compliance with EU regulations.

In the context of prevention the visitors also noted attitudes towards road traffic accidents and the inevitable consequences of the need for sophisticated surgical and plastic repairs. The stomatological profession would increase its already well respected status if it were to become involved in a public campaign of avoidance of road traffic trauma and prevention of trauma from an increasingly affluent society and the inevitable health risks associated with that. Prevention of disease and trauma, though less dramatic, is always better and less costly than cure. The Olomouc Faculty could gain considerable public recognition were it to develop a more intensive preventive programme in all respects. This is an opportunity waiting to be exploited by the stomatological profession in the Czech Republic. The Visitors commend it for consideration.

Section 11 – Operative Dentistry and Endodontics

11.1 OPERATIVE DENTISTRY AND ENDODONTICS

Head: Jitka Stejskalová, Assoc. Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:

Jitka Stejskalová, Assoc. prof., MUDr., PhD .e-mail jitstejs@stomanw.upol.cz

Course design:

Practicing of dental decay treatment and non-carious lesions, practicing of endodontics.

Curricular timing: 3rd – 6th years of dentistry

Semester	Study form	Hours semester	per	Hours per week
6 th semester	Lectures	15		1
7 th semester	Lectures +Practical training	15 / 45		1 / 3
8 th semester	Practical training	45		3
9 th semester	Practical training	30		2
10 th semester	Practical training	30		2
11 th semester	Practical training	45		3
12 th semester	Lectures +Practical training	15 / 30		1 / 2

Primary aims:

Determination of treatment plan, independent treatment in operative dentistry, patient motivation and instruction for selfcare. Students acquire the practical experience and skill in treating patients, complicated cases of filling restorations and endodontic treatment inclusive. Modern approach to caries treatment with respect to problems of patients at high risk and geriatric patient. Focal infection.

Main objectives:

Etiology and histopathology of dental decay and non-caries lesions including clinical and X-ray diagnostics and therapy. Techniques of lesions treatment by means of fillings, protection of tooth pulp, complications in the treatment of tooth decay by fillings. Filling materials, indications and step by step procedures. Practical training in diagnostics and treatment of hard teeth tissues lesions, adhesive techniques in the treatment of non-caries lesions. Differential diagnostics of pulp diseases, principles of the root canals treatment, non-surgical endodontics treatment. Practical application of the knowledge of ergonomic treatment of patients, preventive aspects. Independent management of patient examination, differential diagnostics of pulp and periodontium pathology.

Methods of teaching:

Lectures and seminars complemented by slides and dias. Supervised practical training of patients on dental chair accomplished either on clinical department, either in private practice. Microlectures at practical exercise.

Assessment methods:

Regular check up of knowledge during microlectures, the examination in 8th semester. Students have to fulfill minimal practical limits of treatment procedures, state exam as a part of exam of „therapeutical stomatology.“

Strengths:

Good equipment of working places for every student.

Weaknesses:

Lack of patients (there are no economic advantage for patient treated by student).

Provided by: 1st Clinic of Stomatology LF UP, Palackého 12, , Olomouc 772 00

Operative Dentistry and Endodontics

Syllabuses of lectures, seminars and practical training

6th semester

Lectures:

- 1) Epidemiology of dental caries and periodontal diseases –essentials., contemporary experience in Czech population.
- 2) Histopathological picture of dental caries, clinical appearance, x-rays picture
- 3) Pathological changes of dental hard tissues – treatment principles, biological side effects of preparation.[Preparation trauma].
- 4) The treatment of dentinal wound, protection of dental pulp.
- 5) Noncariogenic defects of dental hard tissues, change of colour, general principles of treatment.
- 6) Treatment of dental caries, restorations – mistakes and complications
- 7) Deep caries lesions, diagnosis and treatment.

7th semester:

Lectures:

- 1) Physiology and pathology of dental pulp and periradicular region; management of deep caries lesion, reversible pulp diseases.
- 2) Drugs in operative dentistry; irreversible pulp diseases,[pulpitis, necrosis, infected necrosis].
- 3) Principles of endodontic treatment - root canal therapy - methodology.
- 4) The treatment of pathologic disorders of dental pulp.
- 5) Periodontitis apicalis - diagnosis, therapy.
- 6] Root filling, supplementary surgical operative dentistry.**

Practical training

- 1) Admission test – check up of students knowledge, complex oral examination, treatment planning.
- 2) Cavity preparation – preservation of healthy dental hard tissues, instruments for cavity preparation – indications for use, biological side effects of cavity preparation, preparation trauma.
- 3) The treatment of sensitive teeth necks, how to keep the dry operation field.
- 4) Principles of 1st class amalgam restoration.
- 5) Treatment principles of compound cavities with amalgam filling.
- 6) Cavity design for glass-ionomer cements, creation of restoration.
- 7) X-ray examination in operative dentistry, intraoral radiography, interpretation of x-ray picture.

8th semester

Practical training:

1. Indication of different filling materials, mistakes in treatment of tooth decay, mistakes in materials handling.
2. Treatment of Black's class III. cavities, preparation for adhesive filling.
3. Treatment of Black's class V. ,cavities in anterior teeth.
4. Treatment of Black's class IV. cavities.
5. Inlays, onlays.
6. Calcium hydroxid containing materials, mode of action of calcium hydroxid.
7. Deep caries lesion, direct and indirect pulp capping.

9th semester

Practical training:

- 1) The principles of examination and differential diagnosis in endodontics. Check up of students knowledge.
- 2) Trepanation – opening of pulp chamber, direct access to root canal, exploring of root canal, topography of root canals.
- 3) Instruments for root canal preparation, step by step root canal instrumentation.
- 4) Reversible pulpitis – methods of treatment.

- 5] Irreversible pulpitis – clinical symptoms.
- 6] The general principles of pulpitis therapy.

10th semester

Practical training:

- 1] Infected root canal [pathophysiological picture, clinical symptoms, diagnosis].
- 2] Treatment of teeth with infected root canal.
- 3] The treatment of periapical infection in acute period, chemical and traumatic origin of periodontitis.apicalis.
- 4] Surgical methods supplementary to endodontic therapy , secondary endodontics, the endodontic treatment of teeth with prosthetic appliance.
- 5] The root canal treatment complications.
- 6] The diseases of pulp and periodontium – differential diagnosis.
- 7] Check up test of students knowledge.

11th semester

Practical training:

1] Examination and treatment plan of adults patient in all age groups with respect to general health conditions.

- 2] The complications in cavity treatment with different types of plastic materials. The small amalgam filling.
- 3] Differential diagnosis of odontogenic pain.
- 4] Focal odontogenic infection.
- 5] Pulp- dentin organ, pulp- dentin syndrom.
- 6] X-ray examination, alternative methods in control of working process and diagnosis.

12th semester

Syllabus of seminars:

- 1] The fails and complications to diagnosis of caries and applicatio of filling.
- 2] Survey of new dental filling materials, dentin adhesives.
- 3] Success and fail of nonsurgical endodontics.
- 4] Periodontal diseases in children. Periodontitis juvenilis.
- 5] Methods of endodontic treatment in teeth with wide open apices, step by step procedure, waz of healing, prognosis.

Practical training [items for microlectures]:

- 1] Remedia in operative dentistry.
- 2] Defects of dental hard tissues of mechanical origin , discoloration
- 3] Repetion.

11.1.1 SUPRASTANDARD PROCEDURES IN ENDODONTICS

(nonmandatory subject)

Head: Jitka Stejskalová, Assoc. Prof., MUDr., PhD.

Person in school who will explain and show it to the visitors:

Jitka Stejskalová, Assoc.Prof., MUDr.,PhD.

Curricular timing: 11th semester, 6th year

Semester	Study form	Hors per semester
11 th	Practical training	10

Main objectives:

Absolutely dry field in endodontics. Techniques of mechanical preparations of root canals before filling (step-back, step-down, round, hybrid techniques) condensation techniques for the filling of root canals. Checking the results of RVG. Practical training in condensation techniques of filling on extracted teeth.

Assessment methods: Final discussion.

Provided by: 1st Clinice of Stomatology LF UP, Palackého 12, 770 00 Olomouc

Visitors Comments

This course would seem to be an essential component for all students and perhaps should not be a separate non mandatory course.

Visitors Comments

The visitors were impressed with the quality of the clinics and the laboratories. Students were trained in the most modern facilities. The senior staff are be comended on their dedication to implement the highest standards in patient care and student training.

The comments in respect of cross infection control are relevant to this clinic (see page 17).

The visitors advocate a discussion and debate on the relative merits of local anaesthesia in the course of procedures which cause discomfort including restorative treatments elsewhere in this report. This also applies here. Earlier we suggested that the fear of a hypodermic syringe could be an historical artifact now superseded by the application of virtually painless local anaesthesia.

Visitors perceived a lack of a comprehensive approach to patient care including the application of fundamental principles of prevention to integrated treatment of the adult patient. Visitors were advised that the timetable did not permit students to pursue a sequence of treatment. One student observed it would be boring to follow through a programme of periodontal preventive treatment in one patient. Perhaps an unfortunate observation but one that would cause considerable reaction in many schools intent on providing appropriate restorative care within the context of an appropriate preventive programme. The consequences of dental disease should not alone treated but also prevented from recurring. The visitors recommend a debate between staff and students on this issue which is a problem that is not unique to Olomouc but one the Visitors consider to be central to the logic of training in stomatology or dentistry. There is little justification in sophisticated treatment and the instruments and equipment that goes with it unless the first priority to control the cause of the disease process in the first instance. The Visitors view this a major concern. Whilst the biological basis for disease is well established there is insufficient emphasis on prevention and the behavioural sciences. The social and psychological influences on health care and promotion need to be included in the curriculum and as ever this requires the elimination of something less important to the overall educational aim.

It was a matter for serious concern that endontic treatment was being carried out without the application of rubber dam to isolate the tooth. This is not a costly precaution and is well documented as being not only desirable but essential to control cross infection. It also reduces the risk of inhaling and swallowing endodontic instruments.

All of the essential infrastructure and expertise is in place to implement an exemplary programme which would serve as a reference source of international repute especially in the context of those countries with stomatological programmes.

Section 12 – Prosthodontics

12.1 PROSTHETIC TECHNOLOGY

Course head: Miroslav Eber, Prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:

Joseph Sheety, MUDr. e-mail: sheetyj@stomanw.upol.cz

Course desing :

Students acquire in this course some practical knowledge about laboratory part of prosthetics treatment.

Curricular timing: 8th semester – 3rd year

Semester	Study form	Hours semester	per	Hours per week
6 th semester	Lectures	15		1
	Practical training	45		3

Primary aims:

The course is aimed at the practical preparation of crowns and bridges.

Main objectives:

Practice is acquired in prosthetic preparation, impression techniques on an instructional phantom, the preparation of a divided model and technology of the preparation of fixed bridges. The acquisition of practical know-how, will be applied by the students in their further studies in clinical fields.

Methods of teaching:

Lectures and practical training complemented by slides and video-programs.

Assessment methods:

Successful passing of the colloquia.

Strengths:

Weaknesses:

No weaknesses known at this time.

Provided by:

2nd Clinic of Stomatology LF UP, Palackého 12, 775 20 Olomouc

Prosthetic Technology

Syllabus of lectures

6th semester:

1. Modern Dental Lab Facilities. Equipment of the Main Europe Manufacturers.
2. Prosthetic Materials Main Characteristics. ADA and ISO norms.
3. Secondary Prosthetic Materials.
4. Main Prosthetic Materials.
5. Dental Alloys.
6. Types and Characteristics of Dental Alloys.
7. Laboratory Processing of Dental Alloys.
8. Equipment and Material Innovation in Prosthetic Lab.

12.2 PROSTHODONTICS

Head: Miroslav Eber, Prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:

Joseph Sheety, MUDr. e-mail: sheetyj@stomanw.upol.cz

Course desing :

This course is aimed at replacing of the teeth, completing dentition and to understandig basic principles of fixed and removable prosthetic dentistry.

Curricular timing: 8th semester – 4th year
9th and 10th semester – 5th year
11th and 12th semester - 6th year

Semester	Study form	Hours semester	per	Hours per week
7 th semester	Lectures + practical training	15/45		1/3
8 th semester	Practical training	15/60		1/4
9 th semester	Practical training	45		3
10 th semester	Lectures + practical training	15/30		1/2
11 th semester	Lectures + practical training	15/45		1/3
12 th semester	Lectures + practical training	15/90		1/6

Primary aims:

The goal is to acquire information and practical experience about working procedures related to the preparation of fixed and removable substitutes within the range of common dental practice.

Main objectives:

Examination of patients, basic diagnostics of the loss of dental tissue and defects of individual teeth and groups of teeth. Prosthetic therapy plan, complete with economic / financial deliberation (budget), as well as the selection of alternative solutions. Dental materials, technology of tooth preparation, knowledge of standard office and laboratory procedures. Reduction of dental tissues, methods for making impressions, reconstruction of intermaxillary relations and laboratory procedures of fixed prosthetics. Indication of crowns and bridges of smaller extent, esthetic crowns in the frontal section. Fixed bridges, indication and preparation. Routine knowledge of impression techniques and reconstruction of jawbone relations, analysis of models for skeletal substitutes, an overview of non-specific and specific retention elements. A part of the instruction in the 12th semester is carried out in the offices of private dentist.

Methods of teaching:

Pracitcal training and lectures, complemented by video-programs, possible participation in dental exhibition in Czech Republic and abroad.

Assessment methods:

Successful passing of the State Rigorous Exam together with Orthodontics.

Strengths:

Weaknesses:

No advantageous tariff for patients treated by a student.

Provided by:

2nd Clinic of Stomatology LF UP, Palackého 12, 772 00 Olomouc

Prosthodontics

Syllabus of lectures

7th semester:

1. Crowns and bridges: History, definition, function and classification.
2. Rational and ergonomic preparation. Types of preparation.
3. Cast crowns. Post and core. Impression technique.
4. Veneered crowns. Composite bonded to metal and ceramics fused to metal. Crown fixation and cement classification.
5. Dental ceramics and hydrothermal ceramic.
6. Dental implants. Prosthetic phase.
7. Complete denture: Clinical aspects.

8th semester:

1. Fixed Bridges. Definition and Terminology. Biostatics of Fixed Bridges.
2. Diagnosis and Treatment Planning of Fixed Bridges. Indications and Contraindications.
3. Retainers and Pontics. Dental Alloys and Facing Materials.
4. Anterior Bridges. Posterior and Extensive Bridges.
5. Metaloceramics- Terminology and Composition.
6. Alloys for Bonding to Porcelain. Fundaments in Substructure Design.
7. Porcelain Fabrication Involving Hand Condensation. Instruments. Some Products Demonstration.

10th semester:

1. Basics of Gnathology. Recording Maxillomandibular relations.
2. Diagnosis and Treatment Planning in Removable Dentures. Direct and Indirect Retainers.
3. Removable Denture- Characteristics and Classification. Construction Components.
4. Model Analysis.
5. Clasps, Attachments, and Telescope Crowns.
6. Removable Bridges. Indication.
7. Voldřichs' 2nd Class Defect – Denture Planning and Design.

11th semester:

1. Principles of removable partial denture design.
2. Patient checkup before removable partial denture fabrication. Modern trends in removable partial denture
3. Chair-side and laboratory procedure of partial denture fabrication. Impression materials. Structural materials.
4. Recapitulation of gnathological principles.
5. Complete denture. Edentulous ridge anatomy.
6. Two-phase of maxillomandibular relations recording.
7. Arrangement of artificial teeth- conception.

12th semester:

1. Biological Characteristic of Dental Alloys. Economic Dental Alloys.
2. Modern Laboratory Equipment.
3. Introduction of Metaloceramic Technology.

12.2.1 PREPARATION COURSE FOR METALOCERAMIC CROWNS

(nonmandatory subject)

Head: Miroslav Eber, Prof., MUDr., Ph.D.

Person in school who will explain it to the visitors:

Joseph Sheety, MUDr.

Curricular timing: 11th semester, 6th year

Semester	Study form	Hours per semester
11 th	Practical training	4

Main objectives:

Training in the preparation of supporting teeth "on steps", types of preparation of these steps, necessary tools and helping aids. Practical training in preparation techniques on a phantom.

Assessment methods: Final Discussion

Provided by: 2nd Clinic of Stomatology, Palackého 12, 772 00 Olomouc

Preparation Course -Syllabus of seminars

11th semester:

1. Instruments- High-speed Handpiece, Micro-motor, High-speed Diamonds, Hard-metal Cutters, ISO Norm.
2. Protection of the Abutment Hard-tissue, Nerve and Periodontium, within and after Preparation.
3. Crown Retention and Abutment Resistance.
4. Preparation Principles in Accordance with Material and Tooth Type.
5. Esthetic Criteria. Adjustment of prepared teeth.
6. Instruments and Aids for Preparation.
7. Preparation inspection, Guidelines of Hard-tissue Reducing.
8. Complications of Preparation.
9. Ergonomic Preparation.

Visitors Comments

Please refer to comments on Restoraytive Dentistry (pages 76 and 77)

Section 13 – Periodontology

13.1

PERIODONTOLOGY

Head: Hana Černá, Assoc. Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:

Hana Černá, Assoc. prof., MUDr., PhD *e-mail:* hanacer@stomanw.upol.cz

Course design:

Students are acquainted with the principles of oral cavity hygiene, they are taught the scaling and root planing, they teach patients home care. There is taught in this course affection of oral cavity mucosa. Slides and atlases are used.

Curricular timing: 9th - 12th semesters – 5th and 6th years

Semester	Study form	Hours per semester	Hours per week
9 th semester	Lectures	15	1
	Practical training	15	1
10 th semester	Lectures	15	1
	Practical trainings	30	2
11 th semester	Seminary	15	1
	Practical training	45	3
12 th semester	Practical training	30	2

Primary aims:

Students will be able to diagnose and treat all types of periodontitis, will be able to recognize affection of oral mucosa and will be able to teach patients oral cavity hygiene. Students also perform minor surgical procedures by themselves.

Main objectives:

Etiopathogenesis and diagnostics of periodontitis, principles of preservative and surgical therapy including the latest methodology and approaches. Introduction to clinical diagnostic of the oral mucosa diseases with an emphasis on the diagnostics of viral, bacterial and specific diseases. Basic symptoms of the pathology of the immune system. An overview of clinical and differential diagnostics and therapy of diseases of the mucosa, stomatodynia, and symptoms of disease of the oral mucosa. Complex examination of patients with periodontitis, diseases of the mucosa and stomatodynia. Diagnostics and proposals of treatment procedures, establishment of a treatment plan. Promotion and practical instruction to the patient for home care. Adoption of all treatment procedures of periodontal preservative therapy. Assistance at surgical procedures on periodontal and mucogingival surgery. Within the framework of guided tissue regeneration, demonstrations of operations. Postoperative care and maintenance therapy.

Assessment methods:

Regular check up of knowledge during practical exercises, the examination in 11th semester, the fulfilment of minimal limits for practical procedures, state examination as a part of exam of „therapeutical stomatology.“

Strengths:

Good equipment of working places for every student.

Weaknesses:

No weaknesses known at this time.

Provided by: 1st Clinic of Stomatology, Palackého 12, 772 00 Olomouc

Periodontology

Syllabusses of lectures, seminars and practical training

9th semester:

Lectures:

- 1] Etiopathogenesis of periodontitis.
- 2] The importance and the value of local and systemic etiologic factors for disorders of periodontal tissue.
- 3] The diagnosis of gingiva diseases.
- 4] Periodontitis.
- 5] The conservative therapy of periodontal diseases.
- 6] Surgical therapy of periodontal diseases – survey.
- 7] Innovation in surgical therapy.

Practical training:

- 1] Patient's examination, indices – CPITN, PBI, OHI-S. Oral hygiene - professional care .
- 2] Home care at patient with periodontal disease.
- 3] Symptoms of acute and chronic gingivitis.
- 4] Objective and subjective symptoms of periodontitis.
- 5] Radiography at periodontal disease – x-ray diagnosis.
- 6] Step by step determination of therapeutic plan.
- 7] Conservative periodontal therapy.

10th semester

Lectures:

- 1] News in surgical treatment of periodontal diseases.
- 2] The condition of dentition and occlusal relations , their importance for health of periodontal tissues.
- 3] The manifestation of viral infections on oral mucous membrane, differential diagnosis.
- 4] The manifestation of allergy on oral mucous membrane, differential diagnosis.
- 5] Differential diagnosis of ulcers on oral mucous membrane.
- 6] Specific diseases [TBC, Lu] , their manifestation on oral mucosa.
- 7] The diseases with auto-immune origin ,the manifestation on oral mucosa.

Practical training:

- 1] The adjustment of patient for surgical intervention on periodontium.
- 2] Indication and goals of surgical treatment of periodontal diseases.
- 3] The surgical methods of periodontal treatment - predominantly therapeutic intentions.
- 4] The surgical methods of periodontal treatment – predominantly preventive intentions.
- 5] The surgical methods of periodontal treatment – predominantly esthetic intentions.
- 6] The maintaining of results of surgical periodontal treatment.
- 7] Determination of treatment plan.

11. semestr

Seminars:

- 1] Immunodeficiency and oral cavity.
- 2] White lesions of oral mucosa .
- 3] Cheilitis.
- 4] Glossitis and stomatodynia.
- 5] Disorders of saliva flow, manifestation of metabolic disorders , foetor ex ore.
- 6] The defence mechanism of oral mucosa. Treatment of oral mucosa diseases – survey.
- 7] Differential diagnosis of oral mucosa diseases.

Practical training

- 1] Synopsis of periodontal diagnosis.
- 2] Acute complications with periodontal diseases.
- 3] Surgical treatment of periodontal diseases, step by step, classification.
- 4] Principles and goals of periodontal treatment.
- 5] Pathological lesions on oral mucosa.
- 6] Manifestation of systemic diseases in oral cavity.
- 7] Therapeutic procedures in mucous membrane diseases.

12th semester

Seminars:

- 1] White lesion – clinic features , diagnosis, treatment
- 2] Ulcer – clinical features, diagnosis, treatment
- 3] Repetition

Visitors Comments

The visitors did not have an opportunity to discuss this area in detail. It was interesting to note that there was no separate department of Oral Medicine and this could relate to the stomatological approach. Neither was there a unit for oral pathology as this was integrated with general pathology.

The visitors were pleased to note in the clinic the emphasis on primary periodontal care in the form of scaling and root planing. Although there is considerable reference to surgical periodontics in the documentation the visitors were pleased that the emphasis was on the more effective conservative procedures of ultrasonic instrumentation and root planing. The visitors were not appraised of auxiliaries such as hygienists and this should be considered in the context of community needs.

Section 14 - Oral Surgery, Dental Radiography and Radiology

14.1 ORAL AND MAXIOLLOFACIAL SURGERY

Head: Jindřich Pazdera, Prof., MUDr., Ph.D.

Person in school who will explain and show this to the visitors:

Jindřich Pazdera, prof., MUDr. PhD e-mail: pazderaj@fnol.cz

Course design:

Students are acquaint with basic of dentoalveolar and maxillofacial surgery, with the problematics of the head and neck trauma and the basic of maxillofacial oncology. They are acquaint with interdisciplinary co-operation among dentists and specialist in other fields of medicine.

Curricular timing: 6th semester – 3rd year
7th and 8th semester – 4th year
9th and 10th semester – 5th year
11th and 12th semester – 6th year

Semester	Study form	Hours semester	per	Hours week	per
6 th semester	Lectures	15		1	
7 th semester	Lectures/ Practical training	15/45		1/3	
8 th semester	Lectures/ Practical training	15/30		1/2	
9 th semester	Lectures / Practical training	15/30		1/2	
10 th semester	Lectures/ Practical training	15/45		1/3	
11 th semester	Lectures / Practical training	15/75		1/5	
12 th semester	Lectures/ Practical training	30/75		2/5	

Primary aims:

Students should be able to administer local anaesthesia into oral cavity, to know the extraction techniques and be able to provide independently simple surgical procedures in oral cavity and face. They should also diagnose and treat the fractures of the teeth and extend a first aid to the patients with maxillofacial injuries, manage basic principles of orofacial oncology and oncological prevention in dentistry.

Main objectives:

Patients' examination, injection anesthesia in the oral cavity and face (techniques, complications), tooth extraction (indication, contraindication, techniques, complications), surgical procedures completing conservative treatment of teeth, dentitio difficilis, disinfection and sterilization in the dental office. Cysts of the jawbones and soft tissues of the face, inflammation in the orofacial area, illnesses of the lymphatic nodes of the head and neck. Limited mouth opening (jaw contracture).

Illnesses of the salivary glands, basics of facial-skeletal X-ray technology. Maxillofacial oncology - pseudotumours, malignant epithelial and mesenchymal tumours, odontogenic tumours. Tumours of the salivary glands. Oncological prevention and dispensarization in dentistry. Dental care of oncological patients. Maxillofacial traumatology: injury to the teeth and jaws, diagnostics, ways and possibilities for treatment. Dental splints. Wartime injury to the face. First aid when treating head and facial wounds and jaw's fractures. Preprosthetic surgery, dental implantology. TMJ illnesses - diagnostics and therapy. Clefts of the lips, jaws and palates - interdisciplinary collaboration and a role of the dentist. Surgical corrections of dentofacial deformities. Manifestations of systemic illnesses of the skeleton in the orofacial area. Dental treatment of high-risk patients, emergencies in dental practice. Basics of plastic surgery on the soft tissues of the face. Physiotherapy in dentistry. Illnesses of the facial nerves.

Assesment methods:

State examination (practical exam + interview)

Strengths:

Weaknesses:

No weaknesses known at this time.

Provided by:

Clinic of Oral and Maxillofacial Surgery LF UP, I.P. Pavlova 6,
775 20 Olomouc, tel. 5854552

Oral and Maxillofacial Surgery

Syllabuses of lectures

6th semester – basic of the dentoalveolar surgery

- 1) Dentoalveolar and maxillofacial surgery – overview, patient examination, main diagnostic procedures
- 2) Local anesthesia of the oral cavity and face – indication, contraindication, techniques
- 3) Tooth extraction – indication, technique, complications. Forceps, elevators and other instruments. Removal of roots.
- 4) Dento-alveolar surgery: removal of uninterrupted teeth, third molars removal, Dentitio Difficilis.
- 5) Dento-alveolar surgery: root tip resection, definition, indication, technique. Orthograde/retrograde root canal filling. Postoperative care, potential complications.
- 6) Radiography of the facial skeleton.

7th semester – dentoalveolar surgery, inflammations

- 1) Cysts of jaws and soft tissues of the face. Classification, development. Odontogenic, non-odontogenic cysts. Diagnosis, surgical procedure (cystectomy/cystostomy). Bone replacement materials for filling defects. Soft tissue cysts - classification, surgical procedures.
- 2) Disinfection in dentistry. Sterilization and operating room hygiene.
- 3) Dento-facial infections. Treatment for abscess - incision and drainage. Surgical procedures for mandibular and maxillary abscesses. Surgical procedure for widespread infection.
- 4) Osteomyelitis, specific inflammation in orofacial region (Actinomycosis, TBC, Lues).
- 5) Lymphatic node disorders
- 6) Diseases of salivary glands - diagnosis, methods of examining the salivary glands. Saliva glands inflammation, saliva stones, sialoadenosis. Surgical treatment of salivary glands diseases.

8th semester - maxillofacial oncology

- 1) Introduction to problematics of the maxillofacial oncology. Benign tumours – diagnosis and therapy
- 2) Spurious tumours and tumours – like affections
- 3) Malignant epithelial tumours – carcinomas of the face, lips, tongue, mouth floor – diagnosis and therapy.
- 4) Malignant epithelial tumours – middle face and skin of the face – diagnosis and therapy.

- 5) Malignant mesenchymal tumours – pathology, anatomy, clinical aspects and therapy
- 6) Odontogenic tumours, salivary gland tumours – diagnosis and therapy
- 7) Prevention in oncology, role of dentist, follow up therapy.

9th semester - traumatology

- 1) Introduction into maxillofacial traumatology
- 2) General rules of the facial fractures therapy, intermaxillary fixation – techniques, interdental and intermaxillary splints, injuries to the teeth
- 3) Lower jaw fractures, diagnosis, treatment.
- 4) Middle face (maxillary) fractures – classification, diagnosis and therapy
- 5) War damages of jaws and face
- 6) Trauma victim management, first aid to the head injured patient

10th semester - miscellaneous

- 1) Pre-prosthetic surgery in edentulous patient
- 2) Orofacial pain, painful disorders of the cranial nerves
- 3) TMJ disorder - classification, diagnostic and treatment
- 4) Orofacial clefts – effect to jaws and soft tissue development, surgical correction, interdisciplinary collaboration.
- 5) Surgical approach to the great jaws anomalies - collaboration of maxillofacial surgeon and orthodontist.
- 6) Implantology in dentoalveolar and maxillofacial surgery
- 7) Systemic bone diseases and their manifestation on face and in oral cavity

11th semester - risk patient care

- 1) Management of the high risk patient in dentistry – general problematics
- 2) Management of the high risk patient in dentistry – the most frequent diseases
- 3) Sudden incidents in dental practice
- 4) Complication in dento-alveolar surgery
- 5) A complex view to the inflammations of the orofacial region including antibiotic therapy
- 6) Basic of the soft tissue plastic surgery in the orofacial region
- 7) Free discussion theme – students' suggestion

12th semester - an overview and practical problems of dentoalveolar surgery

- 1) Complication in dentoalveolar surgery
- 2) Rational antibiotic therapy in dental practice
- 3) Dental risks at radiotherapy and chemotherapy
- 4) Forensic medicine in dentistry
- 5) Malignant tumours of the white blood cells and their manifestation in the oral cavity
- 6) Diagnosis and therapy of the vasoformative tissue tumours in orofacial region (sclerotization, laser-therapy, kryosurgery).

14.1.1 DENTAL IMPLANTOLOGY

(nonmandatory subject)

Head: Jindřich Pazdera, Prof., MUDr., Ph.D.

Person in school who will explain it to the visitors:

Jan Paroulek, MUDr., Ph.D.

Curricular timing:

Semester	Study form	Hours per semester
11 th	Seminars	4

Main objectives:

An overview of contemporary possibilities for dental implantation, indication, contraindication, techniques, procedures and complications. Methods of guiding tissue regeneration. Relationship to prothetic treatment.

Assessment methods: Final discussion

Provided by: Clinic of Oral and Maxillofacial Surgery LF UP, I.P.Pavlova 6,
775 20 Olomouc, tel. 5854551

14.2. DENTAL RADIOGRAPHY AND RADIOLOGY

Dental Radiography and Radiology is not taught as an special subject at our Faculty.

Dental students acquire necessary information on this field within the framework of following subjects:

- Medical Biophysics (physical principlex of X-ray examination) - see 5.1
- Radiology (common indication of X-ray examination, special X-ray techniques, technical equipment, use in Medicine) - see 7.10
- Preclinical Dentistry, Operative Dentistry, Child Health Care, Periodontology (handling with dental X.-ray apparatuses, mastering techniques of intraoral examination incl. interpretation of dental X-rays and orthopantomographs) - see 8.1
- Oral and Maxillofacial Surgery (indication and interpretation of extraoral X-rays of the jaws and skull incl. orthopantomographs) - see 14.1
- Special Professional Lectures (principles of safety and protection from ionizing radiation (in cooperation with the State Institute of Nuclear Safety, participants in these courses may, having completed the seminars and successfully passed the required exam, obtain permission to acquire a source of ionizing radiation) - see 16.2

Strengths:

Weaknesses:

Splitting of acquired information - establishing of Dental Radiology as an independent subject will be necessary in near future.

Visitors Comments

This Department had a dominant influence on the curriculum and teaching philosophy. Procedures which would normally be undertaken by other specialised surgery units in a general hospital were undertaken here including severe trauma, oncology and chemotherapy. The extent of the pathology treated, and treated in exemplary fashion, put in perspectives priorities of a less nature associated with more common dental/oral diseases. Here stomatology embraced all facets of the Head and Neck and indeed more widespread areas. Such an integrated relationship might be envied in other centres. This major surgical/medical emphasis might put in a less strong perspective than those procedures more commonly experienced in dental schools/institutions within the EU.

The Department has an array of talented individuals ably led by Professor Pazdera, supported by his predecessor Professor Jirava and with the considerable talents of Professor Pavel Majer. A department with all the ingredients of a successful future and leadership for an evolving Europe.

We observed a variety of radiographic facilities and radiographs. The basic requirements for radiation hygiene are in place and rigidly observed. The radiographic equipment meets generally accepted guidelines, and a new OPG machine is available. The quality of the films that we looked at were excellent in terms of positioning and diagnostic value. The radiology program meets or exceeds the standard generally observed in the EU and in North America.

In discussing the use of radiographs for diagnosis with staff and students, there appeared to be a hesitation to conduct radiographic examinations in comparison with other schools in the EU and in North America. There may be a value in obtaining bitewing radiographs in children, for example, with evidence of clinical caries to evaluate the interproximal surfaces for demineralization, thus providing the opportunity for remineralization procedures or early conservative restoration of small cavitated lesions. It was the opinion of the visitors that reliance on clinical appearance must be reviewed.

\Section 15 – Optional Subjects

15.1

ORAL BIOLOGY

Course Head: Sylvia Fialová, Assoc. Prof.MUDr. Ph.D.

Person in school who will explain and show this to the visitors:

Sylvia Fialová, Assoc. Prof. MUDr., Ph.D. e-mail: sylvafia@stomanw.upol.cz

Course design:

Students are taught basic principles of the oral microbiology, biology of the pulp and hard and soft mouth tissues.

Curricular timing: 11st semester - 6st year - optional subject

Semester	Study form	Hours per semester	Hours per week
11 st semester	Lectures	7	0,5

Primary aims:

To give the complex view on biological aspects of oral health, including oral microbiology.

Main objectives:

Development and aging of the oral tissues, manifestations and clinical interrelationships. The oral cavity as habitat, the composition and role of microbiological colonization of the oral cavity from the point of view of oral health. Saliva as an oral environment with special respect to its mineralization activity. Deepening and synthesis of knowledge of biological basics of the problematics of the most common oral diseases with an emphasis on the need for a biological approach to their resolution.

Methods of teaching:

Lectures complemented by slides.

Assessment methods:

The successful passing of a final test for the colloquium.

Strengths:

No remarkable

Weaknesses:

The passive students participation only.

Provided by:

1st Clinic of Stomatology LF UP, Palackého 12, 772 00 Olomouc

Oral biology – lectures.

- 1] Development and growth, changes in oral cavity in connection with aging, manifestation of aging on dental tissues.
- 2] Oral cavity as a microbial habitat, changes depending on age and exogenous factors, relation to oral health.
- 3] Saliva and its role in maintaining of oral health.

Visitors Comments:

This course needs to embrace the practical principles of cross infection contral and might be integrated with microbiology as one course.

15.2 ORAL BIOCHEMISTRY

Course Head: Vilím Šimánek, Prof., MUDr., RNDr., DrSc.

Person in school who will explain and show this to the visitors:

Vilím Šimánek, Prof., MUDr., RNDr., DrSc.

Course design:

Students are taught basic principles of the oral biochemistry, including biocompatibility of dental alloys and materials used by dentists.

Curricular timing: 11st semester - 6st year - optional subject

Semester	Study form	Hours per semester	Hours per week
11 st semester	Lectures	7	0,5

Primary aims:

Understanding of oral cavity biochemistry. Methods of clinical evaluation of dental materials, various kinds of tooth pastes and means of oral hygiene.

Main objectives:

Biochemistry of the oral cavity, the role of saliva, chemistry of the development of supra and subgingival tooth culk, chemistry of the remineralization of tooth enamel, antimicrobial preparations used for the purpose of oral hygiene, molecular mechanisms of their effects, their significance in the prevention of periodontal diseases. Dental materials, metals, alloys, copolymers, ceramic materials - their biocompatibility with live tissues, methods of evaluation of biocompatibility of dental materials, international norms.

Methods of teaching:

Lectures and seminars, complemented by slides.

Assessment methods:

Successful passing of the colloquia

Strengths:

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Medical Chemisty LF UP, Hněvotínská 3, 775 20 Olomouc

Visitors Comments:

Recommend this course be integrated with Biochemistry and Clinical Chemistry as one vertically integrated course.

Section 16 – Integrated Patient Care, Dental Emergencies and Special Patient Needs

16.1 FIRST AID

Head: Oldřich Marek, MUDr.

Person in school who will explain and show this to the visitors:
Oldřich Marek, MUDr.

Course desing

The course acquaints the students with basic approaches to the resolution of an acute situation in which life is threatened under hospital and prehospital conditions. Simulated situations are presented on a video-tape.

Curricular timing: 2nd semester – 1st year

Semester	Study form	Hours per semester	Hours per week
2 nd semester	Lectures	15	1
	Clinical instructions	15	1

Primary aims:

The student should be able to provide basic life support at the scene of an accident, to diagnose and treat an unconscious patient, to treat severe bleeding injuries.

Main objective:

Suffocation, airways obstruction, foreign-body airways obstruction, rescue breathing without instruments, cardiac arrest - diagnosis, chest compressions, rescue breathing for children. Unconsciousness - diagnosis, stable position. Types of bleeding, compress points and their usage as bandage techniques. Various types of fractures and dressings, spine and spinal cord trauma. Chest injury, head injury, pneumothorax, abdomen injury. Acute intoxication.

Methods of teaching:

Lectures and clinical instructions on phantoms.

Assessment methods:

Final interview.

Strengths:

Weaknesses:

No weaknesses known at this time.

Provided by:

Department of Aneesthesiology LF UP, I.P. Pavlova 6, 775 20 Olomouc, tel.: 5853579

Visitors Comments:

Students appear to be well prepared for medical emergencies. However the integrated care of patients with dental/oral problems might be an element which deserves further consideration.

16.2

SPECIALIZED PROFESSIONAL LECTURES

Course Head: Pavel Majer, Assoc. Prof., MUDr., Ph.D.

Person, who will explain and show it to the visitors:
Pavel Majer, Assoc. Prof., MUDr., Ph.D.

Course design:

Cycle of seminars aimed to actual problems of postgraduate dental practice.

Curricular timing: 11th semester - 6th year

Semester	Study form	Hours per semester	Hours per week
11 th semester	Seminars	30	2

Primary aims:

Summary of information focused to the actual needs of dental practice.

+

Main objective:

- selected chapters in clinical pharmacology (pharmacological possibilities for the influencing of painful states, pharmacology of acute life-threatening states, significant interaction of medications and undesired side effects of medications in stomatology)
- basic principles of gnathology
- new items from the current dental marketplace
- problematics in the setting up of private dental practice
- physical therapy in dentistry, acupuncture, rehabilitation for the dentists' health
- principles of safety and protection from ionizing radiation (in cooperation with the State Institute of Nuclear Safety, participants in these courses may, having completed the seminars and successfully passed the required exam, obtain permission to acquire a source of ionizing radiation.

Method of teaching:

Seminars.

Assesment methods:

Final interview

Strengths:

Weaknisses:

Provided by:

Clinic of Oral and Maxillofacial Surgery LF UP, I.P.Pavlova 6, 775 20 Olomouc
Tel. 5854552

Visitors Comments:

Should be integrated with other courses.

Section 17 - Behavioural Sciences

17.1 ETHICS AND PSYCHOLOGY IN DENTISTRY

Course Head: Květoslava Nováková, Assoc. Prof., MUDr., PhD.

Person in school who will explain and show this to the visitors:

Květoslava Nováková, Assoc. Prof., MUDr., Ph.D. e-mail kvetanov@stomanw.upol.cz

Course design:

. Students are taught how to apply knowledge of developmental psychology and social aspects in stomatology, the personality and individuality of the patient.

Curricular timing: 5th semester – 3rd year

Semester	Study form	Hours per semester	Hours per week
5 th semester	Seminars	30	2

Primary aims:

Students are acquainted with psycho-therapeutic methods in dentistry, rational convincing, relaxation, the power of suggestion, premedication. Indications of general anesthesia in dentistry.

Main objectives:

Ethics in dental practice, ethical codex. Personality and professional honour of dentists. Value institution and expectations of the sick. Czech Dental Chamber, Health insurance system, role theory and the role of the dentist. Patient's rights, rights of the health care institutions. Deviations and disturbances in individuals in the dental office and dealing with them. Pain, fear and stress in patients. Principles of patient motivation. Communication, formation of ideal doctor-patient and doctor-health care worker relationships. Specifics of individual approaches with children as well as with patients of higher age categories. Handicapped patients, type and extent of handicap, ways to communicate with them and motivate them to participate in preventive programs. Uncooperative patients, classification and causes of their uncooperativeness, methods of examination and treatment.

Method of completion:

Final interview

Strengths:

Weaknesses:

Low number of lessons. The extend of objectiv should be amplified to 2 semestres.

Provided by:

Department of Psychiatry LF UP, I.P. Pavlova 6, Olomouc 755 20 tel: 585 3503
1st Clinic of Stomatology LF UP, Palackého 12, 772 00 Olomouc

Visitors Comments:

The visitors did not observe this in the course of their visit. It was as apparent in Olomouc as in most dental schools that there is a need to improve communication skills with patient. This area is of critical importance in health gain and promotion.

Section 18 - Examinations, Assessments and Competences

Professor Jindřich Pazdera
Professor Miroslav Eber
Assoc. Professor Jitka Stejskalová

18.1 CONTINUOUS ASSESSMENT OF LEARNING FOR YEARS 1 - 6

Screenings of knowledge during the course of studies take place in the form of examinations in individual subjects of the various phases and state rigorous examinations.

A prerequisite of sitting for any exam is the proper completion of seminars and (in Dental disciplines especially) required number of performances from mandatory or optional subjects to the extent set down in the study program. Commonly, oral exams are preferred. Written tests are used mostly for checking the knowledge of students within the framework of practical exercises. Computer screenings of knowledge are used primarily in lower classes, in which they precede examinations in theoretical subjects. This form of verification serves to establish the basic scholarly level of student.

The examination is a comprehensive, classified verification of the knowledge of the student during instruction or at the conclusion of instruction in a given subject. It may have, in addition to theoretical part, also a practical part, consisting of observation of the manual skill and orientation of the student in the given field, examination of a patient, the formulation of a diagnosis and the proposal of a treatment plan.

The State Rigorous Examination, which is a verification of the knowledge of the most important key disciplines, is performed by the student before an examination board, made up of experienced clinical workers of the given field and experts in practice. The examination board is appointed annually by the Dean after approval by the Scientific Council of the Faculty. At the conclusion of their studies the students of Dental Medicine at this Faculty must pass a total of five State Rigorous Examinations in the following disciplines:

- Operative Dentistry (Preventive Dentistry, Operative Dentistry and Endodontics, Paedodontics, Periodontology and Diseases of Oral Mucous Membranes)
- Prosthetic Dentistry and Orthodontics
- Oral and Maxillofacial Surgery
- Internal Medicine
- General Surgery

In the case of failure the student can repeat the examination twice at the most. The last re-sit must be performed before an examination board appointed by the Dean.

Evaluation of the students' knowledge is expressed in four grades:

- Excellent (1)
- Very good (2)
- Good (3)
- Insufficient (4)

Students can sit for an exam after finishing a study program of certain subject (discipline) - it means usually in the end of winter or summer term (semester) according to the rules of the curriculum (see 1.3.) Detailed information follows:

1st Year of Study

1 st semester	2 nd semester
• Medical Chemistry	• Medical Biophysics
	• Biology and Genetics
	• Latin
	• Foreign Language (English, German)

2nd Year of Study:

3 rd semester	4 th semester
• Anatomy	• Biochemistry
• Histology and Embryology	• Physiology

3rd Year of Study

5 th semester	6 th semester
• Preclinical Dentistry	• Pathology
• Microbiology	• Pathophysiology
• Clinical Anatomy (Head + Neck)	• Pharmacology
	• Prosthetic Technology

4th Year of Study

7 th semester	8 th semester
• Preventive Dentistry	• Operative Dentistry
• Dermatovenereology	• Psychiatry
• Neurology	• Otorhinolaryngology
• Medical Immunology	• Ophthalmology
	• Infectious Diseases

5th Year of Study

9 th semester	10 th semester
• Paedodontics	• <u>Internal Medicine</u>
• Oral and Maxillofacial Surgery	• <u>General Surgery</u>
• Forensic Medicine	• Social Medicine
• Epidemiology	• Radiology
• Paediatrics	• Gynaecology and Obstetrics

6th Year of Study

11 th semester	12 th semester
• Periodontology	• <u>Operative Dentistry+Paedodontics</u>
• Orthodontics	• <u>Prosthodontics + Orthodontics</u>
	• <u>Oral and Maxillofacial Surgery</u>

Note: **thick letters** – specialized dental disciplines
underlined - State Rigorous Exams

Successful passing of all prescribed examinations within a single school year is the necessary condition for following the study during the first two stages of study (1st – 3rd year). In the 3rd stage (3rd rigorosum = 4th – 6th year of study) the students have more space for individual study planning, in medical disciplines especially. The

new Higher Education Act (valid since 1999) prescribes students to pay a fee in the cases of exceeding the prescribed length a study by two years.

Basic information about the rate of success in the major examinations in single stages of study in recent years are given in the following tables:

School year: 1995/96

Year	Students signed up for exam	Students repeat the exam	%	Eliminated for failure	%
1 st	36	-	-	1	3.6
2 nd	48	13	27.1	3	6.2
3 rd	56	6	12	2	4
4 th	34	-	-	-	-
5 th	38	-	-	-	-
6 th	24	4	16.7	-	-
Total	230	23	10	6	2.6

School year 1996/97

Year	Students signed up for exam	Students repeat the exam	%	Eliminated for failure	%
1 st	40	-	-	4	10
2 nd	46	14	30.4	10	21.7
3 rd	36	9	25	2	5.6
4 th	38	-	-	-	-
5 th	33	-	-	-	-
6 th	45	7	15.6	-	-
Total	238	30	12.6	16	6.7

School year 1997/98

Year	Students signed up for exam	Students repeat the exam	%	Eliminated for failure	%
1 st	36	-	-	-	-
2 nd	50	15	30	3	6
3 rd	25	6	24	-	-
4 th	30	-	-	-	-
5 th	40	-	-	-	-
6 th	45	15	33.6	-	-
Total	226	36	15.9	3	1.3

School year 1998/99

Year	Students signed up for exam	Students repeat the exam	%	Eliminated for failure	%
1 st	40				
2 nd	43				
3 rd	28				
4 th	21				
5 th	30				
6 th	46				
Total	208				

For more detailed information about examinations in single disciplines see Sections 5 -18

18.2. SKILLS EVALUATION IN SINGLE DENTAL DISCIPLINES

Study of Dentistry - unlike General Medicine - has some specific problems. When leaving the Faculty, our graduate must be able to treat his patients independently. This is the reason why practical training in dental disciplines is a matter of great importance.

For continual evaluation of skills in single disciplines during the study the minimum numbers of practical performance were prescribed. Passing this prescribed number of dental interventions is a necessary condition for a successful completion of a single stage of study.

18.2.1 MINIMUM NUMBERS OF PRACTICAL PERFORMANCES

18.2.1.1 PRECLINICAL DENTISTRY

1st - 3rd Year of Study

2nd semester.

1. Modelling four teeth out of investing block.
2. Modelling two teeth out of wax block.
3. Three preparing and restoring Class I. cavities with temporary cements in resin teeth.
4. Making studying model.

3rd semester.

1. Restoration from temporary materials and lining cements in resin teeth.
2. Two preparing and restoring cavities Class I., phosphate cement and amalgam in resin teeth.
3. Four preparing and restoring cavities Class II., phosphate cement and amalgam.
4. Two preparing and restoring cavities Class V., one phosphate cement and amalgam, one cement and composite resin, in resin teeth.
5. One preparing and restoring cavity Class IV., composite resin in resin tooth.
6. Two preparing and restoring cavities Class III., restorations from composite resin in resin teeth.

4th semester.

1. One post and core in resin tooth.
2. One cast crown in resin tooth.
3. One veneer crown in resin tooth.
4. One acrylic crown in resin tooth.
5. One extracted incisor endodontically treated.
6. One extracted molar endodontically treated.

5th semester.

1. One complete denture.
2. One master cast with preparation for fixed bridge.

18.2.1.2 PROSTHETIC TECHNOLOGY

3rd year of study

6th semester

1. One fixed bridge (four units).

18.2.1.3 PREVENTIVE DENTISTRY

4th - 5th Year of Study

- Complex clinical examination in Dentistry (examination of teeth, occlusal diagnosis, examination of mucosa and gingiva, examination of oral hygiene level) (3)
- Methods of plaque and calculus detection with disclosing agents (2)
- Oral hygiene: motivation to oral hygiene (3)
education and practical instruction of teeth brushing methods (3)
- Scaling, plaque removing (5)
- Ultrasonic scaling (1)
- Elimination and treatment of all problems supporting plaque cummulation (3)
- Topical application of fluoride (3)
- Fissure sealent technique (2)
- Preventive filling (1)
- Dietary Advice (3)
- Demonstration of one's own cleaned dentition, laqueless and calculusless

18.2.1.4 OPERATIVE DENTISTRY AND ENDODONTICS

3th - 6th year of study

- Introductory complex examination (9)
- Recall examination (6)
- Emergency examination (3)
- Intraoral radiography (8)
- Fillings: Black's 1st class (9)
Black's 2nd class (13)
Black's 3rd class (11)
Black's 5th class (9)
- Temporary filling (6)
- Preventive filling (3)
- Indirect and direct pulp capping (8)
- Scaling (11)
- Oral hygiene control (9)
- Topical fluoridation (5)
- Endodontics: pulpitis - pulpectomy under local anaesthesia (4)
pulpectomy after chemical devitalization (4)
root canal filling
infected root canal - biomechanical preparation (7)
- filling (7)
Palliative treatment in endodontics (1)

18.2.1.5 CHILD DENTAL HEALTH

4th - 6th Year of Study

- Introductory examination and treatment planning (15)
- Preventive recall examination (20)
- Simple filling of deciduous teeth (8)
- Simple filling of permanent teeth (13)
- Preventive filling (9)
- Fissures sealing (20)
- Treatment of deep caries lesions - pulp capping, pulpotomy (4)
- Topical fluoridation (35)
- Extraction of deciduous teeth (5)
- Local anaesthesia (terminal) (7)

- X-rays examination (intra-oral radiography) (7)
- Interpretation of panoramic radiograph (10)
- Motivation and education of patient to home care (15)
- Periodontal therapy (scaling with hand instruments and ultrasonic) (13)

18.2.1.6 PERIODONTOLOGY AND DISEASES OF ORAL MUCOSA

5th- 6th Year of Study

- Complex examination (9)
- Recall examination (25)
- Intraoral radiography (10)
- Plan of treatment (9)
- Scaling (22)
- Soft tissue treatment (22)
- Education and instruction in oral hygiene (17)
- Articulation adjustment (3)
- Assistance at surgical interventions (3)
(or independent management, if possible)
- Complex examination of oral mucosa (2)
Recall examination, differ. diagnosis (5)

18.2.1.7 PROSTHODONTICS

4th-6th Year of Study

- Patient examining in Prosthetics (26)
- Treatment planning in Prosthetics (16)
- Impression in fixed Prosthetics (9)
- Maxillomandibular relationship registration (9)
- Tangential tooth preparation (7)
- Shoulder and chamfer preparation (7)
- Post and core- preparation and intraoral inlay modeling (4)
- Post and core- preparation and impression technique (4)
- Abutment preparation for bridgework (minim. 2 abutments) (3)
- Crown and bridge check-up (3)
- Shade taking (VITA system) (3)
- Fixed prosthetic cementation (7)
- Crown removal (3)
- Facet repairing (3)
- Denture repairing without the need of impression (3)
- Denture repairing with the need of impression (3)
- Impression of the opposing arch (7)
- Partial denture adjusting (2)
- Total denture adjusting (2)
- Preliminary impression of the maxillary arch (6)
- Preliminary impression of the mandibular arch (3)
- Final impression of maxillary arch (6)
- Final impression of mandibular arch (3)
- Tooth selection (2)
- Evaluation of the waxed-up denture at final try-in (3)
- Impression of partial denture (2)
- Model analyzing for partial dentures (2)
- Checking and adjusting the dynamic occlusion (2)
- Complete denture relining (1)
- Complete denture rebasing (1)
- Preparing and impression for adhesive replacements (1)

18.2.1.8 ORTHODONTICS

5th - 6th Year of Study

- Impression of both dental arches including wax anatomic bite (2)
- Model analysis (measurement of discrepancy etc.) (10)
- Cephalometric analysis (5)
- Examination of orthodontic patient incl. medical history and clinical diagnosis (10)
- Treatment plan in orthodontics with the full documentation (10)
- Participation in orthodontic check-ups, indication to orthodontic treatment (10)
- Participation in orthodontic check-ups, repairs of removable appliances (under teachers supervision) (10)
- Participation in orthodontic check-ups, repairs of fixed appliances (under teachers supervision) (10)

18.2.1.9 ORAL AND MAXILLOFACIAL SURGERY

4th – 6th Year of Study

- Pharmacology of local anaesthetics (passing a written test)
- Choice and rational use of antibiotic in dental practice (passing a written test)
- Clinical Anatomy of oral cavity and face (practical application in dentistry)
- Patient examination and medical history before surgical procedure in oral cavity (30)
- Preparing the patient for the operation, surgical hands washing, assisting during simple oral surgical procedures (15)
- Independent management of all types of anaesthesia by injection in oral cavity (incl. patients examination and medical history) (35)
- Tooth extraction (at least 30 teeth, incl. anaesthesia application)
- Indication and correct interpretation of extraoral X-ray (40)
- Oncologic patient examination, postoperative check-up, role of Dentist in the postoperative care in maxillofacial oncology (10)
- Independent management of simple dentoalveolar surgical procedure (small lesions excision, wound suturing, surgical extraction, root tip resection) (3)
- Patient examination in Maxillofacial Surgery, diagnosis and treatment plan (5)
- Assistance in Maxillofacial Surgery (traumatology, oncology, jaw anomalies) (3)
- Practice in stomatologic wards (patient examination, clinical notes, drug application, postoperative patient care, emergencies in Oral Surgery, surgical procedures in high-risk patients) (8)
- First aid in Dental and Maxillofacial Traumatology, dental splints (2)

Visitors Comments:

The visitors strongly recommend integration of student care between disciplines and the introduction of student responsibilities for comprehensive patient care. Also it is suggested that careful consideration be given to the competences required of dental practitioners set down as guidelines by the Advisory Committee on the Training of Dental Practitioners Refer to <http://www.dented.org> .

The visitors did not review the assessment methods in detail. It was however apparent that there was a strong reliance on recall based on oral examinations rather than structured written exams or the application of more recent developments in assessment methods. The visitors suggest that a small group be identified to research methods of assessment for consideration by the Faculty. Of special interest should be their competence as dental practitioners in basic dental care procedures from beginning to end. The Visitor did not observe evidence of structured assessment methods to evaluate individual student competence in the full range of basic dental care procedures practised on patients. This should be a central focus whilst ensuring this does not encourage a mechanistic or technical influence. Again reference is made to the bio-psycho-social basis of patient treatment while students develop these competences.

Section 19 - Other Influences

Assoc. Professor Jitka Stejskalová
Professor Jindřich Pazdera

19.1. Regional Oral Health Needs

According to the relations of administrative authorities, the level of oral health in Czechoslovakia (respectively Czech Republic – since 1993) has been improving continually since the 50ies. This phenomenon had been explained both by state given guarantee of free of charge dental care, by systematic dental care for children up to 18 years of age (since 1953) and introduction of community water fluoridation in several regions of the Republic. In 1987 almost 35% of inhabitants drank the fluoridated water. The improvement of oral health referred either to caries experience, or to the level of accomplished treatment – restorative indices. The caries experience in group of 12 – year - old children was – in 1987 – 3.31 DMF, almost 37% of preschool children was cariesfree and only 0.02% of 18 – year - old adolescents had permanent tooth extracted due to sequelae of neglected caries.

After 1989, the whole system of dental health care delivery has been changed. The systematic care for children and water fluoridation ceased. The system of reimbursement also changed. Nowadays the dental care for children is paid by insurance entirely but for adults only partially. New is the possibility of free choice of the dentist. The dental practices are mostly private.

After the analysis performed in 1994 and 1997 by the Dental Research Institute the oral health condition is stabilized. In 12 – year - old children, DMF was 3.07 (in 1994) and 3.2 (in 1997). Only in the group of 6 – year - old children the caries prevalence increased substantially. There was a probability of caries experience impairment in younger children. There is a very regrettable fact that there does not exist any community program of primary preventive care. The prediction of further development of oral health condition is therefore very difficult to estimate. Oral health depends on the level of selfcare of patients and on the level of dental services. This is the reason why the students of Palacký University are taught to educate and motivate the patient to homecare, to change of nutrition and to visit the dentist regularly.

19.2 Involvement in other University Activities

Students are encouraged to be actively involved in student affairs and University Societies. Our Faculty has a strong reputation in these areas and students have responded well to these cultural, sporting and indeed other extra-curricular activities whose scholarly attributes may be difficult to describe. Problems of common interest are discussed on the pages of students' periodical "Had" (The Serpent). Students have also taken part in the CzeMSIC-programs (Czech Medical Students Information Committee) and, in addition, have arranged other travel programs to different regions of the world (1998: Portugal, Germany, U.S.A). There are still some

obstacles for wider spread of international students exchange: many students are not good at foreign languages and the Faculty still has no sufficient contacts with dental schools abroad. This unpleasant situation is due to the years of the international isolation during the communist rule.

19.3 Recreation and Sport

The School considers it important that students have opportunities to spend time, apart from study periods, on other activities. Students of the Faculty of Medicine have the possibility to join various sporting activities organized by the Faculty of Physical Culture. In the framework of those activities, e.g. skiing courses during winter vacations or canoeing courses in summer, are available. Recently, volleyball matches between teams of dental students of Czech Universities were organized. Top sportsmen are joined in the University Sporting Club.

On the other hand, the difficult study, high number of teaching hours during the study year and high frequency of exams are the reason why the free time for our students sporting activities is limited. The high number of commuting students is due to the limited number of places in the students' houses of residence.

19.4 Student Selection Procedures

Students are selected by entrance examinations, consisting of written tests in biology, chemistry and physics. The questions are the same as for General Medicine. The peculiarities of entrance examinations for Dentistry are talent examinations, which are orientational checks of the applicants' skill. The results of these checks, included in the total results, can influence the order in which students are accepted.

The number of applicants for the study of Dentistry has stabilized in recent years. The Study Department of the Dean's Office registers nearly 170 parties interested in these studies annually. Details are given in the following table.

School year	No. of applicants	No. accepted	%	No. who actually started studies	%
1995/96	140	55	39,2	36	25,7
1996/97	184	52	28,3	40	21,7
1997/98	178	37	20,8	36	20,2
1998/99	166	50	30,1	41	24,7
1999/00	174				

It is clear from the table that not all those interested in studying, who fulfilled the required criteria, could be accepted. There is no external or distant-learning pregraduate program in Dentistry.

There is a smaller number of foreign students (5-7) in each year (most of them from Slovak Republic).

Section 20 - Student Affairs

Professor Jindřich Pazdera

Visitors should meet full class of final year together with the class representatives of earlier years

Student representatives who will discuss will be nominated later.

20.1 Basic Data from Dental Schools

- a) Average number of dental students qualifying per year: 30
- b) Average number of dental students admitted to the first year: 40
- c) Length of course in years and/or semesters: 6 years/ 12 semesters
- d) Is there a separate period of vocational training following graduation as a dentist in your country?
YES
- e) If yes to d) above, is this organised by the University/Dental School
PARTLY

20.2 Different Postgraduate Courses, Professional Meetings

The Doctoral Program Board for Dental Medicine was established at the Faculty of Medicine, Palacký University, in 1992. Its chairperson has been Professor Emil Jirava. This board has a total of 8 members, four of which are external. There are, at the present time, 13 doctoral students, four of them extramural. So far, this course of study has been completed by three students, who defended their doctoral dissertation (Ph.D.) in the last two years (see 20.4).

The difficult undergraduate curriculum does not allow concurrent study of both Dental and General Medicine. A graduate in Dentistry, however, has the chance to acquire a qualification in General Medicine within the framework of a two-semester differential course of study, which must be begun within three years after the completion of the study of Dental Medicine. The acquisition of these two qualifications is essential for graduates who want to specialize in Maxillofacial Surgery.

Under the auspices of our Faculty of Medicine and on the basis of agreement with the management of the Faculty Hospital, courses are organized for postgraduate study in Orthodontics. The system was started in 1994, schooling events have statewide significance and are the necessary conditions for the acquisition of the appropriate expert specialization. At present, six participants take part in this course, other four graduated recently.

Dental Clinics serve as training centres for private dentists who are going to obtain "Permission for Specialized Care in Dentistry". Activities of the 1st Clinic of Stomatology are focused to postgraduate courses in Periodontology:

Year	Consulting days with practical training	Affiliation	Total No of participants
1995	8	6	14
1996	3	4	7
1997	7	4	11
1998	5	2	7
1999	4	7	11
Total No of participants	27	23	50

Clinic of Oral and Maxillofacial Surgery have organized one-week postgraduate training in dento-alveolar surgery for private dentists:

Year	No of participants
1995	5
1996	5
1997	6
1998	6
1999	9
Total	31

Graduates, working in private practices in the area of Central Moravia are invited to interclinical professional seminars of our three Dental Clinics five times a year through the Regional Dental Chamber. A further opportunity for making contacts are school events, organized by the clinics – e.g. traditional weekend seminars for practical dentists which are sponsored by the Clinic of Oral and Maxillofacial Surgery 4-6 times in a year with 100-120 participants approximately (focused to emergencies in dental practice, rational antibiotic treatment in Dental Medicine, TMJ diseases etc.).

Recently, our Dental Clinics organized remarkable professional meetings, as e.g. 5th International Symposium on Preventive Dentistry (1st Clinic of Stomatology - May 1997) or Oncological Days - professional meeting of Maxillofacial Surgeons, Dentists, Otolaryngologists, Oncologists and Plastic Surgeons (Clinic of Oral and Maxillofacial Surgery - February 1998 and 1999).

Visitors Comments:

The students we encountered were enthusiastic, impressive, well informed and articulate. Students justifiably were clearly proud of the education/training they received in Olomouc and respectful of their teachers. Initially there was a tendency to defend their curriculum but as the discussion deepened several extremely useful observations were made. These included the following:

1. A lack of communication will senior staff especially in their earlier years of the course.
2. A sense that students views were not valued as essential feed-back mechanisms.
3. Students need to have a mechanism put in place where justifiable concerns/complaints can be brought to authorities confident that they will be duly considered.
4. Students generally accepted the need for integrated patient care.

The visitors suggest that considerable benefit would be derived if students were to be included in decision making structures and earlier in this report recommended the establishment of a curriculum committee with strong students representation. Visitors were conscious of the difficulty experienced by students in gaining experience in other countries. This is to be encouraged. It is recommended that student participate in international student affairs such as EDSA

Section 21 - Research and Publications

Professor Jindřich Pazdera
Professor Miroslav Eber
Assoc.Professor Jitka Stejskalová
Professor Emil Jirava

21.1 Approximate Data Having to do With Activity in the Area of Research

Research tasks, being undertaken at three Clinics of Stomatology of the Faculty of Medicine are carried out in close connection to clinical practice. 1st Clinic of Stomatology is aimed at preventive programs for children with increased dental decay and handicapped patients, the problematics of epidemiology and therapy of non-carious defects of the hard dental tissue, questions of guided tissue regeneration in periodontology and tooth retention.

The research activities of the 2nd Clinic of Stomatology consist of clinical testing of dental alloys, mutual bonds between polymers and alloys, working out the problematics of modern imprinting technology, current issues around gnathology and the problematics of fixed orthodontic appliances.

The Clinic of Oral and Maxillofacial Surgery examines questions of the complex therapy of orofacial malignomas (especially the application of modern antitumorous drugs in regional intraarterial chemotherapy) and problematics of systemic non-invasive and combined treatment in the case of extensive, inoperable tumors of the vasoformative tissue. In the area of jaw traumatology the object of research is finding the optimal possibilities for the treatment of fractures of the mandibular condyles.

21.2 Publications in Refereed Journals

Publications by Staff and Students of Dental Clinics of the Faculty of Medicine, Palacký University (1995-1998).

1995

Walterová, D., Ulrichová, J., Válka, I., Vičar, J., Vavrečková, C., Táborská, E., Harkrader, R., J., Meyer, D., L., Černá, H., Šimánek, V.: Benzophenanthridine alkaloids sanguinarine and chelerythrine: biological activities and dental care application.

Acta Univ. Palacki Olomouc (Olomouc), Fac. Med. 139, 1995, p. 7-16.

Macháčková, L., Prošková, J.: Contribution to Investigations of Oral Hygiene in Students of the Stomatological Branch of the Medical Faculty, Palacký University.

Prakt. zubní Lék., 43, 1995, No. 3, p. 75-80.

Prošková, J., Macháčková, L., Stejskalová, J.: Oral Health of Students of the Medical Faculty Stomatological Branch, Palacký University, Olomouc in the Course of Five Years.

Čs. Stomat., 95, 1995, No. 1, p. 26-31.

Starosta, M., Paroulková, J.: Clinical Experience with a New Material for Direct Rebase.

Prakt. zubní Lék., 43, 1995, No. 1, p. 22-26.

Stejskalová, J.: Vibrating Endo-Terminals in Clinical Practice

Prakt. zubní Lék., 43, 1995, No. 1, p. 16-21.

Zapletalová, Z.: Dentine Hypersensitivity (part I)

Prakt. zubní Lék., 43, 1995, No. 1, p. 27-30.

Zapletalová, Z.: Dentine Hypersensitivity (part II)
Prakt. zubní Lék., 43, 1995, No. 4, p.106-111.

Zapletalová, Z.: Toothpaste Fluocaril bi-fluoré 250 in therapy of cervical dentin hypersensitivity, plaque score influencing.
Acta Univ. Palacki Olomuc. (Olomouc) 1995, Fac. Med. 139, 39-42.

Badalová, J., Macháček, J., Eber, M.: Oral Health of Patients with Comprehensive Antitumourous Treatment. I. Condition of the dentition.
Prakt. zubní Lék., 43, 1995, No. 1, p. 8-15.

Eber, M.: Biological tests of dental alloys. Part. I.
Zubní technik, 1995, No. 4, p. 15.

Eber, M.: Teeth bleaching – effect and risks.
LKS, 6, 1995, No. 3, p. 16.

Kamínek, M., Štefková, M.: Side-effect of fixed appliances, errors and their correction. Nivelisation.
Ortodoncie 4, 1995, No. 4. p. 20-22.

Paroulková, J., Starosta, M.: Clinic experience with new material for direct rebasing.
Prakt. zubní Lék., 43, 1995, No. 1, p. 22-26.

Špidlen, M.: Light and colours in dental practice.
Ortodoncie 4, 1995, No. 4, p. 15-16.

Špidlen, M., Eber, M.: Our Experience with glassionomer cement Aqua cem.
Ortodoncie 4, 1995, No. 1, p. 23-24.

Mořka, V., Paroulek, J.:
Multiple follicular cyst in a child.
Čes. Stom. 95, 1995, 1, p. 32-35

Jureček, B., Pazdera, J., Brázda, A., Hrbek, J., Paroulek, J.:
Contribution of modern examination methods to the
diagnosis of foreign bodies with a slight x-ray contrast
Čes. Stomat. 95, 1995, 2, p. 53-58

Jirava, E., Jureček, B.:
Fractures of the mandible caused by a plaster bandage.
Čes. Stom. 95, 1995, 3, p. 77-81

Pazdera, J., Brázda, A.:
Less usual injuries of the orbit.
Čes. Stomat. 95, 1995, 3, p. 82-88

Mořka, V., Zbořil, V.:
Dislocation of the tooth into the tissue of the cheek.
Čes. Stom. 95, 1995, 4, p. 132-134

1996

Černá, H., Kotršová, H., Fingerová, H., Heczko, P., Konečná, L.: Effect of Hormonal Contraception on the State of the Periodontium.
Čs. Stomat, 96, 1996, No. 3, p. 88-92.

Kaprálová, S., Černá, H.: Ladenta Mouthwash.
Prakt. zubní Lék., 44, 1996, No. 4, p. 101-105.

Prošková, J., Stejskalová, J., Macháčková, L.: Complications during Endodontal Treatment and Their Prevention.
Prakt. zubní Lék., 44, 1996, No. 1, p. 3-9.

Starosta, M.: Non-cariogenic Defects of Hard Dental Tissues such as Abrasion, Attrition and Erosion.
Prakt. zubní Lék., 44, 1996, No. 1, p. 10-14.

Starosta, M.: Starfill and Goodfill in Clinical Practice..
Prakt. zubní Lék., 44, 1996, No. 2, p. 47-53.

Zapletalová, Z.: Verification of Effect of Toothpaste Fluocaril bi-fluoré 250 in the Therapy of Dentin Hypersensitivity, Plaque Score Influencing.
Čs. Stomat., 96, 1996, No. 6, p. 189-195.

Bernardová, M., Eber, M.: Complication after Application Fixed Dentures.
Prakt. zubní Lék., 44, 1996, No. 3, p. 63-67.

Bernardová, M., Špidlen, M.: Influence of orthodontic treatment on retention of adhesive bridges.
Ortodoncie, 5, 1996, No. 4, p. 16-21.

Bezrouková, Z., Bezrouk, J.: Dyract review.
Prakt. zubní Lék., 44, 1996, No. 6, p. 143-148.

Eber, M.: Biological Tests of dental Alloys.
Zubní technik, 2, 1996, No. 1. p. 17-18.

Eber, M.: Dyract.
Progresdent, 1996, p. 18.

Eber, M., Jansová, K.: Dentine Adhesives-clearly and briefly.
LKS, 6, 1996, No. 1, p. 17-19.

Kamínek, M., Štefková, M.: Side-effects of fixed appliances, errors and their correction. Bite raising.
Ortodoncie 5, 1996, No. 1, p. 17-19.

Kamínek, M., Štefková, M.: Side-effects of fixed appliances, errors and their correction. Anchorage.
Ortodoncie 5, 1996, No.4, p. 13-15.

Paroulková, J., Starosta, M.: Tokuse rebase, material for direct rebasing.
Progresdent, 6, 1996, p. 9.

Prukner, R.: Age estimation from teeth by lamenoín's method.
Prakt. zubní Lék., 44, 1996, No. 3, p. 59-62.

Štefková, M.: Simulator of activation of palatinal arches.
Ortodoncie 5, 1996, No. 3, p. 18-20.

Zbořil, V., Pazdera, J., Mořka, V.:
Extrapulmonary tuberculosis of the orofacial region.
Čes. Stomat. 96, 1996, 3, p. 85-87

1997

Nováková, K.: Compomeric Materials as an Alternative of Amalgam in Paedostomatology.
Čs. Stomat., 97, 1997, No. 5, p. 214-220.

Starosta, M.: Fillings Prepared from Compomeres Dyract and Compoglass Microleakage
Prakt. zubní Lék., 45, 1997, No. 6, p. 120-126.

Starosta, M.: Defects in the Area of the Dental Neck (Review)
Prakt. zubní Lék., 45, 1997, No. 6, p. 127-133.

Bernardová, M., Lichnovská, J.: Treatment of Dentin Leasions in Prosthetics.
Prakt. zubní Lék., 45, 1997, No. 1, p. 11-16.

Bernardová, M., Eber, M., Malínský, J.: Alloys etching "chair-side."
Čs. Stomat., 97, 1997, No. 4, p. 163-175.

Bernardová, M., Špidlen, M.: Theoretical Principle of adhesive Attachement. Part I.
Ortodoncie 6, 1997, No. 1, p. 15-17.

Bernardová, M., Eber, M.: Aurix L as Alloy for adhesive Bridge.
Zubní technik 2, 1997, No. 1, p. 18-21.

Kamínek, M.: Need for orthodontists in Czech republic.
Ortodoncie 6, 1997, No. 1, p. 3-5.

Kamínek, M., Štefková, M.: Side-effects of fixed appliances, errors and their correction. Tooth movement.
Ortodoncie 6, 1997, No. 4, p. 16-18.

Kamínek, M., Štefková, M.: Side-effect of fixed appliances, errors and their correction. Tooth movement.
Ortodoncie 6, 1997, No. 4, p. 16-18.

Kamínek, M., Špidlen, M., Štefková, M.: Materials for fixed appliances in orthodontic practices.
Ortodoncie 6, 1997, No. 3, p. 19-23.

Mrowiec, J., Štefková, M.: Treatment of complete cross bite with lateral displacement of mandible In adults.
Magazyn stomatologiczny 7, 1997, No. 7, p. 39-42.

Špidlen, M.: Implants in orthodontics.
Ortodoncie 6, 1997, No. 6, p. 8-9.

Jureček, B., Majer, P., Sulovská, I.:
Spontaneous haemorrhage into face soft tissues in haemophiliacs.
Čes. Stom. 97, 1997, 2, p. 82-85

Justová, E., Pazdera, J.:
Cryalization in the treatment of vasoformative tissue tumours.
Čes. Stomat. 97, 1997, 4, p. 176-182

Justová, E., Pazdera, J.:
Vasoformative tissue tumors treatment I.
Čes. Stomat. 97, 1997, 5, p. 227-229

Justová, E., Pazdera, J.:
Vasoformative tissue tumors treatment II.
Čes. Stomat. 97, 1997, 6, p. 269-272

Brázda, A., Paroulek, J., Pazdera, J.:
Alloplastic reconstruction of postoperative defects of the mandible in oncosurgery.
Scripta Medica 1997, 70, 4, p. 368-372

1998

Černá, H., Starosta, M.: Possible Use of Dermalasers in Periodontology.
Prakt. zubní Lék., 46, 1998, No. 2, p. 52-56.

Černá, H., Dobešová, J., Starosta, M.: Diagnostic Errors in Stage II. Syphilis.
Prakt. zubní Lék., 46, 1998, No. 3, p. 104-108.

Fialová, S., Kolek, A., Mathonová, J.: Coeliac Disease and Oral Health.
Čs. Pediatr, 53, 1998, No. 6, p. 337-339.

Špidlen, M., Krejčí, P., Štefková, M.: The cooperation of orthodontist and oral surgeon in the treatment of impacted upper canines.
Ortodoncie 7, 1998, No. 1, p. 15-19.

Nováková, K., Průšová, D., Prošková, J.: Prevention of Dental Cariosity in Neonates and Toddlers by Reducing the Level of Streptococcus Mutants in Pregnant Women. I. Preventive Programme in Pregnant Women.
Čs. Stomat., 98, 1998, No. 1, p. 15-23.

Poláček, R., Nováková, K.: Effects of pH of Saliva on the Dental Cariosity in Students of Dental Surgery, Palacký University, Olomouc.
Prakt. zubní Lék., 46, 1998, No. 1, p. 19-25.

Stejskalová, J., Prošková, J., Zapletalová, Z.: Results of Treatment of Defects of the Neck by Fillings Prepared from Glass-ionomeric Cements (Four-year Investigation)
Prakt. zubní Lék., 46, 1998, No. 4, p. 115-122.

Stejskalová, J., Macháčková, L.: Repeated Endodontic Treatment
Prakt. zubní Lék., 46, 1998, No. 5, p. 174-180.

Dostálová, M., Fritschová, E., Konečná, V.: Orthodontic treatment in adults.
Ortodoncie 7, 1998, No. 3, p. 12-17.

Eber, M., Bernardová, M., Bezrouková, Z.: Fixation by Compomers.
Čs. Stomat., 98, 1998, No. 1, p. 10-14.

Lemáková, J., Krpčiarová, M., Štefková, M.: Aesthetics of frontale section of dentition.
Ortodoncie 7, 1998, No. 2, p. 24-29.

Marek, I., Špidlen, M.: Biomechanics of intrusin and its influence on root resorption.
Ortodoncie 7, 1998, No. 2, p. 16-23.

Špidlen, M., Krejčí, P., Štefková, M.: Interdisciplinary cooperation in treatment of defect in area of upper canine.
Ortodoncie 7, 1998, No. 1, p. 15-19.

Brázda, A., Pazdera, J., Paroulek, J.:
First experience with intraarterial application of Paclitaxel in the treatment of head and neck carcinomas.
Čes. Stom. 98, 1998, 2, p. 63-68

Zbořil, V., Pazdera, J., Mořka, V.:
Blow-out fractures of the orbit and contemporary
methods of their treatment.
Čes. Stom. 98, 1998, 3, p. 83-88

Jureček, B., Brunner, V.:
Therapeutical aspects of TMJ - diseases.
Čes. Stom. 98, 1998, 4, p. 122-129

Justová, E., Pazdera, J., Mihál, V.:
Interferon - alpha-2a in systemic therapy of vasoformative tissue tumors.
Čs. Pediat. 1998, 53, S1, p. 28

Brázda, A.:
The first experience with intraarterial administration of Paclitaxel (Taxol) in the treatment of head
and neck carcinomas.
Journal of Cranio-Maxillofacial Surgery 1998, Vol. 26, S. 1, p. 22

21.3 Lectures at Major Conferences with International Participation

Stejskalová, J.: Root canals management by vibration devices.
3th International stomatologic conference INTERDENTAL 95, 18. – 20.5.1995

Kamínek, M., Špidlen, M., Štefková, M.: Transition to fixed appliances in Olomouc.
24. symposium sekci ortopedii szczekowej. Lublin (Poland) 12. – 13.9.1996.

Pazdera, J., Brázda, A., Zbořil, V.: Island flap in primary reconstruction of face defects in maxillofacial
oncosurgery.
5th Neuschl's Otolaryngological Days, Martin (Slovakia), 1996

Pazdera, J.: Mandibular prognatism: Dingman or Obwegeser?
2nd Šubjak's Day, Martin (Slovakia), 1997

Brázda, A., Pazdera, J., Paroulek, J.: Possibilities of postoperative jaw defects reconstruction in
maxillofacial oncosurgery.
2nd Šubjak's Day, Martin (Slovakia), 1997

Fialová, S.: The minimal intervention techniques (from F-varnish to small fillings).
5th symposium on preventive stomatology, 23. a 24.5.1997 Olomouc.

Marthaler, T.M., Fialová, S.: Government role in promotion and surveillance of fluorides.
5th symposium on preventive stomatology, 23. a 24.5.1997 Olomouc.

Kamínek M.: Planning of rational and non-rational treatment.
2. Zjazd Polskiego Towarzystwa Ortodontycznego. Lodź (Poland) 25.-27.6.1998.

Brázda, A.: The first experience with intraarterial application of Paclitaxel (Taxol) for the treatment of
head and neck carcinomas.
- '98 International Congress of the Head and Neck Cancer, Hong-Kong, 1998
- 5th National Head and Neck Cancer Congress, Beijing (China), 1998
- XIV Congress of the European Association for Cranio-Maxillofacial Surgery,
Helsinki (Finland), 1998

21.4 Grants awarded to Staff of Dental Clinics, Faculty of Medicine, Palacký University (1996-98)

Nováková, K.: The possibility to make the prevention of dental caries at children more effective.
Grant IGA MZ ČR, 1996

Eber, M., Pazdera, J., Stejskalová, J.: Simulators education in dentistry
Grant Fondu rozvoje vysokých škol, project No 0030, 1996

Černá, H.: Use of Dermalaser in Dentistry.
Grant LF UP No. 13801101, 1997.

Starosta, M.: The controled regeneration of periodontal tissue.
Grant LF UP No. 13801101, 1998.

Mihál,V., Weigl, E., Indrák, K., Pazdera,J.: Multidrug resistance in cancer: Molecular, celular and clinical aspects.

Grant IGA Mz ČR No. 4132-5 , 1997-2001

Majer, P.: Computer analyzed didactic tests creation
Grant Fondu rozvoje vysokých škol MŠMT (58/1998, 5249 F3) - 1998

21.5 Higher degrees awarded by the Palacký University of Olomouc, Faculty of Medicine for projects supervised by staff of Dental Clinics (1995-1999)

Professors nominations (Scientific Council of the Faculty)

Year	Thesis Title	Name	Degree
1995	Possibilities of Surgical Correction of Dentofacial Deformities	Jindřich Pazdera	Professor
1995	New Possibilities of Dental Care for Mentaly Retarded Children	Květoslava Nováková	Assoc.Professor
1997	Adhesive Bridgeworks as an Alternative Solution after an Orthodontic Treatment	Marcela Bernardová	Assoc.Professor
1998	Oral Health of Children and Adolescents in the Czech Republic from the Point of View of the Program "Health for All in 2000" and Following Aims	Otakar Krejsa	Assoc. Professor

The Ph.D. Degree (Doctoral Program Board)

Year	Thesis Title	Name	Degree
1998	Composite Facets - An Experimental and Clinical Study	Lenka Roubalíková	Ph.D.
1999	Treatment of Class II Malocclusions - a Comparative Study	Miloš Špidlen	Ph.D.
1999	Noncarious Defects in the Cervical Area of Tooth	Martin Starosta	Ph.D.

Visitors Comments:

There is clearly a strong tradition for publishing in Olomouc. The influence of the Editor of the Czech Journal of Stomatology, Professor Emil Jirava, Professor Emeritus, has been significant and greatly admired. In a ten year period it is apparent that considerable progress has been made. It is now time for staff to seek to publish in the international literature to a greater extent than previously. Also the predominance of case reports and clinical procedures might give way to original research without adopting too critical an approach to those who are making the effort to publish. The visitors view Olomouc as a reference source for many other non EU schools. In that context it needs to provide leadership in original clinical and basic research. We noted the enthusiasm of some of the basic science teachers to be involved in research including clinical research. We also wondered whether the publications of the medical sciences and basic sciences teachers could be included in the publications credited to Stomatology.

The relative absence of the dental research journals for the library needs to be addressed if Olomouc staff are to become motivated to publish in international journals. It is appreciated that at this time there are financial limitations in what can be achieved. Comments in relation to the need for more computer access have already been made earlier in this report on library facilities.

Section 22 - Quality Development

Professor Jindřich Pazdera

Introduction

Quality development is an integral part of a continuous improvement programme. To be successful, quality development should be based on continuous evaluation of all the component parts of the curriculum, i.e. the staff, the course content and the student progress. It is clear that the quality of an educational process can only be measured in relation to the aims and mission of the institution. It should also be accepted that some outcomes of education may be difficult to assess.

Aims & Objectives

To identify strengths and weaknesses, promote good practice and enable remedial action. Evaluation is only effective if accompanied by a programme which develops support structures for staff enabling them to rectify weaknesses and reward strengths where these are identified.

CURRENT PRACTICES IN OLOMOUC

1. Evaluation of Staff Performance.

Academical staff of dental departments is evaluated by student responses to structured questionnaires. Recently this evaluation was done at the Department of Oral and Maxillofacial Surgery with the agreement of all staff. Each tutor was informed about his/her results and is also made aware of how he/she compares to average performances for all other tutors.

2. Continuing Education and Training for Staff

In the framework of postgraduate education the young members of the staff are prescribed to practice at all clinical dental departments of the Faculty. After two years training they can sit for a specialization exam (attestation) in Dentistry and reach a degree of Specialists in Stomatology. Further professional training, focused to certain narrower discipline (Orthodontics, Oral and Maxillofacial Surgery) is finished (after four years at least) with special examination (advanced attestation). Other possibility for improving qualification is professional training at other Faculties in Czech Republic. Training abroad is possible, but still limited because of poor international contacts (remainder of international isolation during communist rule) and language barriers.

Postdoctoral studies of young members of staff start usually two or more years after graduation (more details see 19.2)

A useful opportunity of experience exchange are Interdisciplinary Seminars, organized by the staff of three dental departments under Vice Deans' supervision. These Seminars, organized five times in a school year are the possibility for

presenting new methods of treatment and preliminary results of clinical research. Seminars are open for students and practical dentists from the region.

Cooperation within the framework of clinical research is open for our students, too. Gifted students are encouraged to solve and present of less or more simple research problems (under supervision of staff members). These students are supported financially by the Faculty.

3. Evaluation Process in the Czech Republic

During the last two years all Faculties of Medicine in Czech Republic (incl. Palacký University) have gone through the process of evaluation, organized by the Ministry of Education. Dental studies have been evaluated separately from other disciplines. Results of this evaluation will be known by the end of this year.

Visitors Comments

Olomouc would be a very significant reference centre for further development of the principles of quality assurance. They have a considerable infrastructure with the potential for addressing this complex issue to the benefit of European dentistry.

Section 23: Profile of a Graduate

Official material of Czech Association of Dental Educators (1997)

In the course of pregraduate instruction, students acquire knowledge of etiopathogenesis, prevention and therapy of illnesses both of the hard and soft tissues of the oral cavity and face to the extent corresponding to the level current in dental medicine. Every graduate must be capable of applying the basics of prevention, diagnosing pathological states and of applying acquired knowledge to the treatment plan. Knowledge obtained during the study of other medical disciplines make it possible for the student to carry out the essential synthesis of information and its practical utilization taking into account to the overall state of health of the patient.

A. General Background

1. Knowledge of the principles of adequate interpersonal communication and medical ethics.
2. Examination of the patient (taking a case history, objective examination based on appearance and palpitation).
3. Establishment of a diagnosis and treatment approach.
4. Independent preparation and interpretation of intraoral X rays, interpretation of extraoral X-raygrams of the skull.
5. Indication and practical utilization of basic laboratory investigative methods.
6. Hygiene in the dental office.
7. Basic orientation in the care of high-risk patients, first aid in the case of emergency in dental office.
8. The ability to actively take part in interdisciplinary cooperation with doctors in related fields.

B. Conservative Dentistry and Endodontics

1. Examination of an adult patient, diagnostics of developmental and acquired changes, the proposal of a treatment plan.
2. Knowledge of tools, implements and materials used in conservative dentistry, knowledge of the technology of their preparation and how to work with them in the dental office.
3. Care of dental decay, preparatory approaches, indications for filling material, treatment of pulpal diseases.
4. Diagnostics and treatment of pathologic states of non - carious defects of hard dental tissue.
5. Pathology and therapy of periodontitis and its complications.
6. Theoretical and practical knowledge of methods of care of tooth canals, possibilities of treatment , techniques of filling, complications, surgical methods as supplement of conservative care.
7. Theoretical and practical knowledge of clinical examination of focal infection.

C. Paedodontics

1. Examination of child patients, proposal for a plan of treatment.
2. Knowledge of the principles of the prevention of dental decay and parodontitis as it appears in children.
3. Mastery of prophylactic operations (motivation, local flouride treatment, sealing of fissures, preventive operations).
4. Theoretical and practical knowledge of methods of consevative tooth care in childhood.
5. Theoretical and practical knowledge of the care of tooth injuries in children.
6. Diagnostics and treatment of periodontal diseases in childhood.

D. Periodontology

1. Examination of the gums and the oral mucous membranes, indexes, principles of oral hygiene, hygienic training.
 2. Differential diagnostics in periodontology.
 3. Treatment of gingivitis.
 4. Principles of conservative treatment of periodontitis, indications of surgical methods.
 5. Principles of prevention of periodontal diseases, removal of local irritating influences (calculus etc.).
- Differential diagnostics and treatment of illnesses of the mucous membranes.

E. Prosthodontics

1. Establishment of a diagnosis and plan for prosthetic treatment.
2. Basic knowledge of dental materials used in prosthetic dentistry, knowledge of technological approaches in the dental office and laboratory.
3. Knowledge of standard therapeutic approaches and ability to carry them out independently (preparation of the teeth, methods for taking impressions, registration and reconstruction of intermaxillary relations).
4. Knowledge of basic principles of gnathology and the ability to apply them independently in the construction of all types of prosthesis, in diagnostics and prevention of myoarthropathy.
5. Prevention in dental prosthetics.

F. Orthodontics

1. Establishment of clinical diagnoses in orthodontics.
2. Knowledge of diagnostic and modern therapeutic methods used in orthodontics.
3. Knowledge of the appropriate period for the beginning of orthodontic treatment.

It is not assumed, that the graduate will be able to make a plan of orthodontic treatment and carry it out independently.

G. Oral and Maxillofacial Surgery

1. Application of local anesthesia in the orofacial area. Management of local and overall complications of local anesthesia.
2. Tooth extraction including the care of the most common local complications.
3. The care of current odontogenic inflammation (intraoral incision, rational dispensing of antibiotics)
5. Simple preprosthetic surgery.
6. First aid in traumatology of tooth and jaws (replantation of teeth, simple dental splints, sutures of wounds of the face and oral mucous membranes.
7. Basic principles of maxillofacial oncology, oncological prevention and dispensarisation.

Good theoretical knowledge of diagnostic and therapeutic approaches in oral surgery is assumed, including orientation in problems of treatment of soft tissue inflammations, illnesses of the mucous glands, knowledge of maxillofacial traumatology, oncology and surgery of jaw anomalies.

The current graduate of Dental Branch is an Oral Physician with a solid theoretical base and partial practical independence, who is able to work at an accredited workplace under the supervision of an experienced and qualified dentist.

Visitors Comments

There is little difference in opinion about such a concept. However, as always, the practical and integrated achievement of this principle is not an easy task. We emphasized the need to develop graduates with a sympathetic understanding of the psycho-social elements of patient care as well as the scientific and biological basis of disease, prevention and health gain. This is compatible with a broadly competent graduate in primary dental care.

Section 24 - Visitors Comments on the School

EXECUTIVE SUMMARY

The visitors wish to acknowledge the friendly and hospitable way in which they were received and the arrangements which were made particularly by the Vice Dean of the Faculty responsible for Stomatology, Professor Jindrich Pazdera. The document prepared for this visit is one of the most complete and easy to read documents the visitors have seen and we wish to compliment staff and students on the clarity of its presentation.

Many of the essential ingredients of an excellent school of stomatology can be found in the Faculty of Medicine in the University of Palacky, Olomouc in the Czech Republic. These include visionary leadership, dedicated staff and committed students and a general commitment to doing what is best for both patients and students. Although the clinics were separated and caused inconvenience there were well equipped and had the necessary components of what is necessary for modern stomatology. Many of the comments in this section are repetitive of earlier comments and many may justify a re-emphasis.

Because of the comparisons made between stomatology and odontology and because of the previous move in the European Union away from stomatology this was considered to be one of the most important of the DentEd visits. This is especially so because it was also the first school outside the European Union to become involved in a Dented review. In the Introduction to this report the visitors have emphasised that the differences between the two systems should be addressed on outcome and competence expectations rather than curricular detail and content.

The Visitors believe that the fact that patients who are treated in the institute include patients with extensive and life-threatening pathologies and tissue destruction associated with trauma and oncology had an enormous influence on priorities and relevance of treatment procedures. This is not found in most EU schools where more usually but not always there is a dedicated hospital unit devoted to Maxillofacial surgery as part of a general hospital. Inevitably such advanced surgical interventions all apparently carried out with admirable care and surgical prowess and admitted to their own self-contained in-patient facilities within the Stomatological Institute profoundly and reasonably influenced priorities. Nevertheless the day-to-day role of most stomatologists will not be in the cauldron of life and death patient care, rather in the control and treatment of common oral and dental diseases. However, would be dangerous for those who are accustomed to their own traditions of dental schools to impose their values on the traditions of stomatology without further exploration of relative priorities, outcomes and indeed value for State investment.

The curriculum is spread over six years in order to embrace a considerable amount of the biological and medical sciences. The visitors found a curriculum that was extensive and thorough in respect of the particular disciplines but without integration and without a clear overall educational philosophy or identification of what clinical

competences a new graduate should be capable of doing on completion of the course on stomatology.

It was clear that the stomatological students were well received and respected as being very highly motivated in the Faculty of Medicine. In some respects, the stomatological approach embraces aspects of the concept of the oral physician. However, in doing so it concentrated on the preliminary years of study in the biological and pre-medical sciences when the concept of the oral physician was directed toward the stomatologist or dentist having competences in primary health care management of patients rather than on theoretical aspects.

Herein the visitors found a potential conflict. On the one hand the dentist or stomatologist is required to be competent to carry out the practice of dentistry on completion of his or her programme. On the other hand the medical student is expected to have a broad theoretical concept acquiring further competent in hospitals and clinics following graduation. The European Union requires of a dental graduate to be competent, to carry out the independent practice of dentistry. The concept of the oral physician asks that a dentist also have competence in the comprehensive care of a patient embracing the general well being of the person. Further discussion is necessary to determine the relevant merits of stomatology and odontology as they move closer to each other particularly within an expanding European Union. In the light of this visit a special section will be devoted to this subject at the Stockholm consensus meeting in September 2000.

If there was a criticism of the stomatological curriculum in Olomouc it was that it contained too much detail in the theoretical subjects and insufficient emphasis on the acquisition of clinical competence. This should not be interpreted as suggesting that the stomatologist or dentist is essentially a technician; indeed the opposite is the case. Clinical competence embraces the philosophy of holistic patient care.

The Visitors noted that there was no defined area of Oral Medicine and Oral Pathology. This would be unusual in most EU schools but there was insufficient time to discuss this matter in more detail.

The role of the dentist can be very significant in maintaining the well being and systemic health of his or her patients and the comments that are made in respect of the individual sections identify some of the concerns which the visitors had. Particular attention is drawn to the need to develop comprehensive integrated patient care, universal precautions in controlling cross infection, increased emphasis on the behavioural sciences and patient communication and the fundamental importance of integrating the curriculum between all of the disciplines including the theoretical, medical and stomatological departments.

The comments of this group of visitors may dwell on those aspects where there may be different views or interpretations. Nevertheless this should not detract from the considerable amount of work which has been done in this School of Stomatology and its enormous achievements as is evidenced by the extensive self assessment document which clearly sets out the positive aspects of the curriculum in the Faculty of Medicine, Palacky University.

Strengths:

- Dedicated staff led by an able Associate Dean and Heads of Department with pride in their school and programme
- Treatments provided in areas such as Oral and Maxillofacial surgery are far in advance in complexity and seriousness in comparison to those provided in EU dental schools
- There is a commitment to high quality
- Potential for rapid development
- A potential reference centre for schools with similar curricular structures
- 6 year programme
- Considerable background in medical sciences
- Well equipped clinics and laboratories
- Good infrastructure with potential for major advancements

Weaknesses:

- Lack of integration in curriculum with separate departments.
- Physical separation between major clinics
- Curriculum excessively influenced by excessive detail of medical curriculum
- Insufficient application of universal precautions
- Students do not appear to retain responsibility for individual patient care – separate technical/clinical requirements mitigate against comprehensive care
- Excessive emphasis on memorising
- Absence of a defined unit of Oral Medicine and Oral Pathology

Innovations and Best Practices:

- Broadly based medical/scientific programme clearly provides basis for “Oral Physician” concept
- Priority given to serious conditions, such as those treated in maxillofacial surgery
- This School serves as a very useful international model for the stomatological approach
- Significant progress made in the past 10 years making this a reference source or bench mark for other stomatological institutions.

Recommendations:

- Reduce detail in curriculum
- Prioritise essential knowledge and competences - consider EU documents from the Advisory Committee on the Training of Dental Practitioners on clinical competences and promote this
- Integrate curriculum
- Introduce curriculum committee or review group
- Introduce a cross infection control officer or group
- Apply universal precautions
- Introduce integrated patient care
- Publish more in international research journals
- Involve junior staff and students in decision making
- Keep up the good work; it is an example for others