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LOCES

LEARNING OBJECTIVES
for
CHIROPRACTIC EDUCATION
in
SWITZERLAND

**LOCES II: Catalogue for Postgraduate
Chiropractic Training**

Levels and letters of the OBJECTIVES written in **GREY colour** belong to LOCES I (under-graduate education) & LOCES II (postgraduate education). Raised Levels and letters in LOCES II compared to LOCES I are written in **BLACK colour**.

Under the Mandate of the
Swiss Chiropractic Institute (SCI) and the Association of Swiss Chiropractors (ASC)
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PREFACE

In 2004 a body of the three heads of the departments of the Swiss Chiropractic Institute and its director involved in the postgraduate education, continuous education, quality surveillance and research, has set upon establishing the Programme of Subjects of the Examination for Chiropractors for a number of reasons.

- ◆ All countries accurately define the training objectives, i.e. the knowledge and skill levels to be acquired for the chiropractic diploma
- ◆ The basic and clinical knowledge and the number of available diagnostic and therapeutic techniques have increased exponentially
- ◆ Chiropractic educators must carefully select the skills the assistants must acquire, and decide for each skill when and how it should be taught
- ◆ Planners of postgraduate and continuous programmes must know and plan the levels in chiropractic skills and knowledge examined at the Intercantonal Chiropractic Examination
- ◆ Assistants must know the levels in chiropractic skills and knowledge examined at the Intercantonal Chiropractic Examination

Chiropractic training does not end with graduation from a chiropractic school in the USA or Canada, but is completed by 2 ½ years of postgraduate chiropractic training in Switzerland. The postgraduate programme offered and coordinated by the Swiss Chiropractic Institute (SCI) in Berne should neatly fit upon the graduate program; planners of postgraduate programmes therefore must be informed about the levels in skills, knowledge and attitudes reached by the time of graduation. These skills, knowledge and attitudes are defined in LOCES I.

Finally in 2005 the Swiss Chiropractic Institute has started a major revision of the chiropractic curriculum due to the future demands of the upcoming MedB / LPméd. Paradoxically, this revision has been undertaken before common goals and specific learning objectives had been set. This describes the main reason for defining LOCES I for the undergraduate chiropractic training and LOCES II for the postgraduate chiropractic training.

The Board of Education of the Swiss Chiropractic Institute welcomed the Working Group's choice of using the Blueprint of the Swiss Catalogue of Learning Objectives for Undergraduate Medical Training as a model and basis of the LOCES I and II.

We express our warmest thanks to the Joint Conference of Swiss Medical Faculties (SMIFK), especially many thanks to Professor Ch. Bader, the president of SMIFK for waving the copyright and to Professor H. Bürgi to place the internet working tool of the SLO-catalogue at our disposal.

Undoubtedly, LOCES I and II will have its critics. These learning objectives for chiropractic education in Switzerland are the result of a collaborative effort, involving not only the Working Group but also the Swiss Chiropractic Board of Education including all members of the present Intercantonal examining commission, the GDK/CDS, the Federal Office of Public Health, the chiropractic principals and assistants as well as the teaching staff of the Swiss Chiropractic Institute.

The Swiss Chiropractic Institute is glad to offer LOCES I and II to the members of the examining commission, the educators, the chiropractic principals and the assistants.

Berne, October 2005

Martin Wangler DC, Director SCI

1. INTRODUCTION

1.1 Background

Learning objectives¹ had been established for chiropractic education in Switzerland in 1980. The holder of an Intercantonal Diploma in Chiropractic (acquired by passing the Final Intercantonal Examination) has the right to independently practice chiropractic anywhere in Switzerland. Over the last years, the following developments enhanced the revision of the existing learning objectives that should be reached by the time undergraduate and postgraduate chiropractic education are completed:

- ◆ The Federal Department of the Interior published a draft of the new MedBG/LPméd including the chiropractic education
- ◆ The Board of Education of the Swiss Chiropractic Institute discussed how to establish learning objectives – compatible with the standards of the upcoming new law for medical professions in Switzerland - for chiropractic education in order to plan the levels in chiropractic skills, knowledge and attitudes lectured at the Swiss Chiropractic Institute
- ◆ Undergraduate as well as postgraduate chiropractic education in Switzerland is presently assessed by the Intercantonal Chiropractic Examination but will be assessed in the future – under the new MedBG/LPméd – by a Federal Chiropractic Exam.

1.2 The “LOCES I & II” project

1.2.1 Mandate to revise the Stoffplan/programme des matières

Some years ago GDK/CDS gave the mandate revising the Stoffplan/programme des matières to the Swiss Chiropractic Institute. In March 2004 a first final draft of the revised programme was presented to the Intercantonal Examining Commission. It consisted of three parts:

- ◆ Part 1: Outline of candidate's clinical competencies in English, German and French
- ◆ Part 2: Programme of subjects classified by domains
- ◆ Part 3: Reading list

At the same time first talks with the authorities of the Federal Office of Public Health concerning the new law MedBG/LPméd started. These talks started the preparation phase for the upcoming accreditation due to this new law on medical professions in Switzerland.

¹ S T O F F P L A N FUER DIE INTERKANTONALE CHIROPRAKTORENPRUEFUNG aufgrund von Art. 17 des Reglements über die interkantonale Chiropaktorenprüfung, vom März 1980, Mai 1984; P R O G R A M M E D E S M A T I E R E S D E L'EXAMEN INTERCANTONAL POUR CHIROPRACTICIENS conforme à l'article 17 du Règlement concernant les examens pour chiropacticiens, mars 1980, Mai 1984

The Board of Education of the SCI decided in August 2004 to go for a Swiss Catalogue of Chiropractic Learning Objectives analogue to the Swiss Catalogue of Learning Objectives for Undergraduate Medical Training.

In September 2004 the Board of Education asked the Joint Conference of Swiss Medical Faculties (SMIFK) - made up of the faculties concerned with undergraduate training and education in medicine – to use the Blueprint of the Swiss Catalogue of Learning Objectives for Undergraduate Medical Training as a model and basis of the LOCES I and II.

On March 17th 2005, the Board of Education decided on the following:

- ◆ To establish a Working Group (Task force LOCES) in order to prepare a Swiss Catalogue of Chiropractic Learning Objectives (undergraduate and postgraduate chiropractic training).
These learning objectives must be met in order to qualify for the Intercantonal or the Federal Diploma in Chiropractic
- ◆ The Working Group was to present this catalogue in English within the end of the year 2005
- ◆ The Working Group was to report regularly to the Board of Education

The Task Force LOCES met for the first time on April 7th 2005 and was assisted from the very beginning by the IML/AAE of the University of Berne.

1.2.2 Composition and mode of operation of the Working Group

The Board of Education composed the Working Group as follows:

Chairman:

Martin Wangler DC Director of the SCI, Berne

Members:

E. Faigaux DC (representative of the principals)

Ch. Joder DC (representative of the assistants, from October 2005)

M. Lauper PT DC MD (head of department of postgraduate education SCI)

M. Wangler DC (director of the SCI)

I. Wohlhauser DC (representative of the assistants until October 2005)

B. Zaugg DC (head of the department of continuing education SCI)

Martha Mattmann (secretariat at the SCI, Berne)

From April 2005 to September 2005, the Working Group met several times at the SCI and worked intensively by using a *WEB-Delphi* system on the Internet for discussing and commenting LOCES. For additional comments, LOCES was sent to all 13 members of the Board of Education, to the GDK/CDS, to The Federal Office of Public Health and to the official head research officer of the SCI. LOCES I & II were sent to all members of the Intercantonal Examining Commission. Step by step, the Working Group reached the decisions outlined in the following sections.

1.2.3 Review of legislation

The Working Group agreed that the Catalogue had to comply with Swiss legislation, the new upcoming law on medical professions (MedBG/LPméd) and be compatible with European Union legislation. Since 1974, the Swiss Conference of the Cantonal Ministers of Public Health GDK/CDS regulates the chiropractic education in Switzerland. The Intercantonal diploma in Chiropractic enables the chiropractor to independently practice chiropractic anywhere in Switzerland.

The following future law will affect the current legal framework: The Federal Law on the Medical Professions, the MedBG/LPméd. This law will include the chiropractic profession as the fifth medical profession in Switzerland (Art.2). In the articles 4, 6 and 7 the draft enumerates a fair number of general objectives concerning knowledge, skills, attitudes, social competence and personal development to be reached by undergraduate education. Article 8 defines the profession- and discipline-related objectives to be reached by the undergraduate chiropractic education. The aims of the postgraduate education are described in articles 4 and 17. Article 17, paragraph 1 describes the main objective of the postgraduate education, the broadening and deepening of the acquired knowledge, capability, skills, attitudes, and social competence of the undergraduate education (ergo Art. 4, 6, 7, 8) in order to be able to practise the profession autonomously. For this purpose, paragraph 2 (letter a–g) defines objectives to be reached by the postgraduates.

Although this new law is still under development, the Working Group assumed that the general as well as the discipline-related objectives of undergraduate and postgraduate chiropractic education formulated in the draft will pass the parliamentary review process without substantial changes. Thus, the group has incorporated the objectives of articles 4, 6, 7, 8 and 17 into LOCES I&II

1.2.4 Scope of the Catalogue and general level of competence to be achieved

Based on the above review of existing and forthcoming legislation, the Working Group defines the level of competence to be reached as follows:

- ◆ ***The Catalogue describes the target competencies for the core curriculum including the elective mantle (specific chiropractic competencies).***
- ◆ ***The undergraduate training enables the holder of an Intercantonal or Federal Diploma in Chiropractic to enter the existing postgraduate training program of the SCI leading to an Intercantonal or Federal title in Chiropractic.***
- ◆ ***Only the postgraduate diploma (Intercantonal or Federal title in chiropractic) entitles the holder to practice chiropractic as a primary care provider (without supervision) in an independent practice (if the further requirements for a licence to practice are fulfilled).***
- ◆ ***Nonetheless, the graduate can handle vital emergency situations for a short period, until senior assistance arrives.***
- ◆ ***The holder of the postgraduate diploma must have the theoretical knowledge regarding the professional skills and attitudes and must have experience in using and performing these skills and attitudes as defined by LOCES II.***

Formally, LOCES II encompasses the specialties covered in the Final Intercantonal or Federal Examination, including anatomy, physiology, general pathology, ethical principles, legal responsibilities, neuropathophysiology, pharmacology and biochemistry. In addition to that, a competence level 2 in “Clinical Pictures” or “Further Knowledge” implies that the postgraduate knows and applies the pertaining basic science topics. Thus, with the Clinical Picture "Cervical disc disease," the postgraduate should also comprehend the relevant anatomy, physiology, pathophysiology and pathology.

- ◆ LOCES II contents basically the same learning objectives as LOCES I. Only the level of competence concerning each learning objective varies. ***The holder of the postgraduate diploma must have the theoretical knowledge regarding the professional skills and attitudes and must have experience in using and performing these skills and attitudes in order to be able to cope with in practice as an independent practitioner.***

1.2.5 Review and selection of a model catalogue

Since the Catalogue was to be completed by the end of 2005, the Working Group sought existing catalogues from other countries which could serve as models. In particular, the Working Group reviewed the Blueprint of the Swiss Catalogue of Learning Objectives for Undergraduate Medical Training of the Joint Conference of Swiss Medical Faculties (SMIFK).

The Working Group decided to use the Swiss Catalogue as a foundation. This Catalogue uses a simple system of defining knowledge and skill levels. Apart from being easy to read, the general level of competence to be reached to enter any of the postgraduate specialist training programmes in medicine in Switzerland is comparable to the level of competence to be reached to start the Swiss postgraduate chiropractic training programme. We have modified the Swiss Catalogue in quite a few places but have maintained its basic structure.

We added two new disciplines:

- ◆ “basic science” in order to stay compatible with the present Part I of the Intercantonal Examination for chiropractors in Switzerland and
- ◆ “specific chiropractic competences” in order to meet the demands of postgraduate chiropractic training in Switzerland.

1.2.6 Specialist panels for discipline-related objectives

For each discipline the Working Group was in possession of earlier feedback of specialists of the existing Intercantonal Examining Commission and the lecturing staff at the Swiss Chiropractic Institute in Berne².

A *WEB-Delphi* system was established on the Internet, the goals of which were to:

- ◆ allow chiropractic and medical experts from all over Switzerland easy access to a set of continuously changing learning objectives in progress.

² Draft of the revised « Stoffplan für die interkantonale Chiropraktorenprüfung (programme des matières de l'examen intercantonal pour chiropraticiens) » programme of subjects classified by domains, version March 2004

- ◆ allow the experts to add comments and to propose deletions or changes to individual learning objectives.
- ◆ reduce manual data entry from paper forms.
- ◆ allow access only to selected and appointed experts.

These tasks were achieved over the Internet, using a password-protected Web site. Web pages are generated dynamically, always presenting the newest state of the database by means of Microsoft Active Server Pages. Access to objectives is by categories or alphabetic searches. Web forms allow comments and suggested changes to be entered online. All input is added automatically to the database. Various disciplines used this system to varying degrees. Some provided their contributions as Excel or Word files.

This system lends itself well to the ongoing collection of commentaries and suggested changes as the objectives are being implemented.

1.2.7 Choice of language

- ◆ The Board of Education decided on March 4th 2004 to prepare the Part 1³: Outline of candidate's clinical competencies in English, German and French
- ◆ The Chiropractic Institute Board decided on March 4th 2004 to prepare the Part 2³: Programme of subjects classified by domains and Part 3³: Reading list in English, in order to reduce the workload, especially because Part 2 and 3 have to be actualized constantly in order to update the basic and clinical knowledge as well as the chiropractic diagnostic and therapeutic techniques and are used as the actual document of reference to the levels in chiropractic skills, knowledge and attitudes examined at the Intercantonal Chiropractic Examination.
- ◆ Therefore the Working Group decided on April 2005 to prepare LOCES I & II in English. English has replaced Latin as the international lingua franca of medicine.

1.2.8 Consensual implementation of the Catalogue

The Catalogue was commissioned by the Board of Education, the Intercantonal Examining Commission for chiropractors in Switzerland, the GDK/CDS as well as the Federal Office of Public Health.

We recommend that it first be tentatively enacted for two years, after which it could be amended. Especially chapter 5⁴ will be added during the next two years. At that time, the revision of the chiropractic postgraduate education programme will be completed by the SCI in order to be ready for the accreditation process (MedBG/LPMéd). Also, once executed, it should be insured that the Catalogue is revised at regular intervals. A database format was developed in parallel. This allows a much more flexible use of the catalogue as well as the ability to make amendments while in use, rather than in a periodical "pulsatile" approach.

³ Draft of the revised « Stoffplan für die interkantonale Chiropraktorenprüfung (programme des matières de l'examen intercantonal pour chiropraticiens) » programme of subjects classified by domains, version March 2004

⁴ 5. PROBLEMS AS STARTING POINTS FOR TRAINING

1.2.9 Copyright

Much of the Catalogue is based on the Blueprint of the Swiss Catalogue of Learning Objectives for Undergraduate Medical Training of the Joint Conference of Swiss Medical Faculties (SMIFK). We are extremely grateful to our Swiss colleagues, who have permitted us to use and modify the Blueprint for our purposes. As the Swiss Catalogue of Learning Objectives for Undergraduate Medical Training, LOCES is also protected by copyright. The copyright rests with the Swiss Chiropractic Institute (SCI). The Catalogue is accessible in the internet (www.chiropractic-institute.ch). Other parties may use it provided they cite the source appropriately and pass on the right to use their product in analogy to the GNU/Linux/Open Source Software principle.

1.3 Structure of the Catalogue

The Catalogue follows the structure of the Swiss Catalogue of Learning Objectives for Undergraduate Medical Training with substantial textual modifications. It is divided into the following four sections:

◆ **Profile of the doctor by the end of postgraduate education**

This chapter defines broad objectives for attitudes, knowledge and skills. It is based in large part on the preliminary draft of the *MedBG/LPméd*. The postgraduate doctor is capable of

- preventing, recognizing, treating in a curative or palliative manner dysfunctions and diseases
- actively promoting health and applying adequate preventative measures
- looking after patients in a comprehensive as well as individual way of high quality
- practising evidence based medicine, taking into account ethical as well as economical aspects in decision making
- communicating with the patients and other persons involved in an efficient and reliable way
- taking responsibility in the Swiss health care system in general as well as interprofessionally
- including duties of practice management and practice organisation into daily practice work
- cooperating with other health professionals
- coping with the international free competition

◆ **General objectives**

This section lists the knowledge, skills and attitudes desirable in order to function as a good chiropractor. It is limited to aspects that do not pertain to a single discipline only, but which are relevant to most activities in chiropractic. The Working Group is aware of the fact that the goals have been set high, and that they will only be partially achieved during postgraduate

training. Years of maturing and experience will be required to approach these goals. It has to be the aim of postgraduate education to further acquire knowledge, skills and attitudes desirable in order to be able to cope with in practice and function as a good chiropractor.

◆ **Problems as starting points for training**

Here, a problem will be defined as a complex of complaints, signs and symptoms (e.g. torticollis) which may lead a patient to seek chiropractic counselling. The problem-solving goes beyond the classical exercise of establishing a differential diagnosis; it includes therapeutic, social, preventive, and other interventions. Problems will be selected if:

- they occur frequently;
- even though the problem is rare, rapid and appropriate intervention may be life-saving.

The Working Group is still working on this list of chiropractic problems as starting points for chiropractic training.

◆ **Discipline-related objectives**

The lists are made up of objectives grouped by medical and chiropractic disciplines (basic science, surgery, internal medicine, specific chiropractic competences etc). For each discipline the list is divided into the following domains:

- Clinical pictures (levels 1 or 2)
- Further knowledge (if appropriate) (levels 1 or 2)
- Skills (levels 1, 2, 3 or 4)

Some specialties necessitated relatively detailed lists of objectives; others were more selective.

The Working Group wants to emphasize that the number of objectives is by no means proportional to the amount of knowledge and skill required for a particular discipline.

The number of items on the list should therefore not be translated into allotted teaching time.

In some disciplines the Swiss Catalogue of Learning Objectives for Undergraduate Medical Training was followed closely, in other disciplines the objectives were totally reworked. The Working Group added two further disciplines to the Swiss Catalogue of Learning Objectives for Undergraduate Medical Training's list: basic sciences and specific chiropractic competences.

Section 1.2.6 explains the mode by which discipline-related objectives were obtained from the specialty panels via a Web site. The Working Group reviewed every single objective supplied by the specialty panels. If deemed appropriate, it cancelled (or, more rarely, added) specific objectives or adapted the knowledge and skill levels required. The Working Group apologizes that, due to lack of time, specialty panels did not have the opportunity to see the Catalogue after this review process. The specialty panels will have the opportunity to amend the Catalogue during the initial time period of its provisional enactment.

1.4 Concluding remarks

The Working Group was under considerable time pressure to finish the Catalogue by the end of 2005. In particular, it regrets that time was too short to let the specialty panels reconsider the Catalogue after the Working Group's editorial review. The Working Group therefore suggests that the Catalogue be put into provisional use for a period of approximately two years and then be revised. This will allow the specialty panels and other concerned parties to suggest appropriate amendments.

2. SPECIALIST PANELS AND OTHER CONTRIBUTORS FOR DISCIPLINE-RELATED OBJECTIVES

(*: Chiropractors in private practice)

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3. PROFILE OF THE DOCTOR BY THE END OF POSTGRADUATE CHIROPRACTIC EDUCATION

3.1 Basic objective of postgraduate education

Postgraduate training enables the Doctor of Chiropractic (DC) and holder of the Intercantonal or Federal Diploma in Chiropractic to work independently in Switzerland as 'Chiropraktor/in SCG', 'Chiropraticien/ne ASC', 'Chiropratico/a ASC'. The diploma entitles the holder to practice Chiropractic independently

The postgraduate is able to:

- come up with the correct neuro-musculo-skeletal working diagnosis after elaboration of a differential diagnosis
- recognize emergency situations and take the appropriate measures
- improve his/her education and scientific knowledge, skills and attitudes constantly in order to prevent, recognise, treat in curative or palliative manner diseases, including rehabilitation procedures and health promotion
- know the principles and methodologies of today's research
- analyse and understand medical and chiropractic information as well as research outcomes in a critical and professional way in order to put such knowledge into action
- recognize, use and administer preventative measures
- work within an interdisciplinary team in order to further wellbeing of the patient
- provide their patients with comprehensive and individual care of high quality
- make clinical (chiropractic) decisions, taking into account scientific, ethical and economic aspects
- communicate correctly and adequately with patients and other involved individuals or groups
- taking responsibility as a member of the existing health care system as well as an individual health professional within his/her community
- integrate legal aspects of the Swiss health care system into his/her daily activity
- know the interrelationship between the economy and the health care system including its different branches
- recognize the limits of his/her medical and chiropractic activities, constantly assess his/her work in regards to efficacy of treatment as well as economic aspects and understand the ethical dimension and the responsibility of his/her professional activity towards the individual, society as well as the environment
- take on organisational and management tasks pertaining to his/her professional activity

3.2 Knowledge, skills and attitudes

The postgraduate:

- knows signs and symptoms concerning complications and contra-indications regarding manual treatment of the neuro-musculo-skeletal system, e.g. the spine
- with a background in physics, has to gain a thorough theoretical knowledge of the normal function of the neuro-musculo-skeletal system as one important integrated part in the human body's system.
- has the scientific basis necessary for preventive, diagnostic and therapeutic measures
- has to gain a certain ability to critically evaluate the acquired theoretical knowledge through practical exercises
- based on anatomical knowledge (by lectures, laboratory and palpation classes), has to acquire an understanding of the inspection of joint mobility, muscle strength and function, skin consistency and acquire the ability to identify joints, skeletal structures and muscles by palpation on a living human being
- has to develop skills with regard to examination, diagnosis and treatment of mechanical dysfunctions of the neuro-musculo-skeletal system, e.g. the spine
- has to revise and refine psychomotor skills
- must practice psychomotor skills with the aim to achieve speed and precision in regard to adjusting techniques
- has to be aware of non-verbal communication, and reflect upon personal experiences in the examination situation
- demonstrates competence in a broad range of communication skills: a) communicating with patients and/or relatives, professionally, inter-professionally and empathically, b) communicating with colleagues orally or in writing, c) communicating with insurances
- understands the principles and methods of scientific investigation
- recognises health-promoting factors and appreciate their value in his/her work
- is capable to care for patients in collaboration with other health care professionals
- can analyse and critically appraise chiropractic and medical information and research, and is capable of applying these in his/her professional activity
- learns from other disciplines and knows how to get continuing education
- is acquainted with the legal basis of the health care system and is capable of transposing this knowledge into his/her professional practice
- can judge the efficacy of the chiropractic services he/she renders and can act accordingly
- has an understanding of the interrelationships between the general economy and the health care system and its various structures for providing health care

3.3 Social competence and personality development

The postgraduate:

- knows and respects the limits of chiropractic activity and of his/her personal assets and weaknesses
- understands the ethical dimensions of his/her professional activity, and takes on responsibility towards the individual, the society and the environment
- is aware of the needs of information at an adequate level of complexity

3.4 Specific objectives

The postgraduate:

- respects the dignity and autonomy of human beings, is familiar with the foundations of ethics and with ethical problems in chiropractic
- knows the basic structures and mechanisms of function of the human body in all phases of its development and in its whole spectrum from health to disease
- has the knowledge of the clinically-relevant, normal structure and function of the individual, and understands its relevance to clinical situations
- has the knowledge of the human life cycle
- masters diagnosis and therapy of those diseases and illnesses which are frequent or which require urgent intervention,
- cooperates interprofessionally
- can make a diagnosis a plan of management and is able to summarise and communicate the findings
- can analyse health problems comprehensively
- uses a holistic approach towards health and disease, including physical, mental, social, ethical, legal, economical, cultural and ecological factors and implications in order to assess and solve health problems individually and in their social context
- promotes human health by counselling (patients and family members) and by appropriate measures (cure, prevention and health promotion)
- has to respect human autonomy and must be guided during his/her professional work by ethical principles for the sake of human wellbeing

4. GENERAL OBJECTIVES

This chapter lists the knowledge items, skills and attitudes desirable to function as a good doctor. It limits itself to aspects that pertain to most activities in chiropractic. More specific goals are mentioned in the discipline-related objectives. One should take into account that these objectives concern a doctor who has just passed his chiropractic final examinations part II. He will need continuing education for future practice.

It is the task of each faculty to assure the teaching and training in these general objectives.

The chapter canters around four topics:

- *Medical and/or chiropractic aspects*
- *Scientific aspects*
- *Personal aspects*
- *Aspects related to society and the health care system*

4.1 Medical and/or chiropractic aspects

The following classification has been chosen:

- Man in somatic, mental and social respect
- Problem recognition and description
- Patient history
- Physical examination
- Initial problem analysis and plan (problem analysis I)
- Additional investigation
- Extended problem analysis and plan (problem analysis II)
- Management plan
- Attending
- Reporting and making records
- Emergencies
- Prevention
- Chiropractic History

This list artificially separates processes which are simultaneous or cyclic and repetitive.

4.1.1 Man in somatic, mental and social respect

The postgraduate has:

- knowledge of the somatic, mental and social structure and functions of men and women
- knowledge of the normal phases of life and of possible disturbing factors

- insight in human behaviour in various circumstances, especially in problem situations and requests for help

4.1.2 Problem recognition and description

The postgraduate:

- watches and listens to the patient and pays attention to the importance the patient attributes to the complaints and to the wishes and expectations he expresses
- makes a list of the problems and of the requests for help by the patient

4.1.3 Patient history

The postgraduate is capable of:

- taking a history (present complaint, previous history, mental and social condition), paying attention to chiropractic and medical content as well as aspects of communication
- systematic as well as hypothesis-oriented gathering of data
- taking a history from a third party

4.1.4 Physical examination

The postgraduate is capable of:

- performing a general physical examination, a specific chiropractic examination of the neuro-musculoskeletal system and mental examination of the patient, using the proper techniques and systematically collecting data
- recognising abnormalities and symptoms
- correctly naming and describing findings

4.1.5 Initial problem analysis and plan (problem analysis I)

This includes:

- interpreting and evaluating data from problem description, history, physical examination and other findings
- assessing the urgency of necessary actions including the need for immediate referral if warranted
- assessing somatic and mental complaints and symptoms against the patient's social and cultural background, taking into account the previous history, gender-specific differences, epidemiological and occupational aspects and the mutual influence between work and health
- establishing a list of problems, differential diagnosis, tentative diagnosis or working hypothesis

4.1.6 Additional investigations

The postgraduate:

- knows when to arrange or to perform additional investigations
- weighs whether or not to investigate further
- weighs the expected benefit against the burden on the patient, possible complications and costs (including the consequences of false-positive/false-negative results)
- works according to standard procedures and evidence based guidelines or systematic critical literature reviews if available
- knows the diagnostic procedures that can be requested and the principles of their execution
- interprets and evaluates the outcome of investigations
- pays attention to incidental findings of investigations

4.1.7 Extended problem analysis and plan (problem analysis II)

The postgraduate:

- re-analyses the case with results of additional investigations
- makes sure the problem identified fits the request for help by the patient
- makes a tentative diagnosis, which serves as a starting point for therapy

4.1.8 Management plan

The postgraduate:

- sets the therapeutic goal
- works out a management plan in consultation with the patient
- works according to standard procedures whenever available
- takes into account the expected effects of treatment as compared to the natural history, age, personal and family circumstances, expected compliance, potential side-effects, complications, continuity of care, possible co-morbidity and costs
- determines how and when treatment will be evaluated
- adjusts diagnosis and management plan during the course of the disease if necessary and if evidence based guidelines or systematic critical literature reviews indicates it
- decides on how to instruct the patient about treatment, including information on effects and side-effects
- reassures the patient and explains to him the rationale of the therapeutic procedures, including (if pertinent) why no further action is taken
- discusses psycho-social issues (if relevant)
- advises the patient on preventative measures in lifestyle, work, behaviour, nutrition and other relevant issues
- knows the principles of chiropractic and the relevant techniques
- knows the practical aspects of the administration of a specific chiropractic technique
- selects the route of administration, dosage, dose-intervals and duration of a chiropractic treatment

- knows the principles of pharmacology and pharmacotherapy, and the relevant drugs
- knows the practical aspects of prescribing medication (including legal requirements)
- knows about medication (taking into account age, gender and environmental factors of the patient, possible pregnancy, acceptance by the patient, contraindications, interactions, side-effects and drug dependency)
- recognises overdose/poisoning and side-effects
- is aware of the most common medical treatments of the locomotor system, in particular pharmacotherapeutic, orthopaedic and neurosurgical
- is aware of alternative treatment methods and can deal with patients who have recourse to it
- in referral/consultation the postgraduate:
 - refers to the right person (either general practitioner or specialist) and determines the urgency
 - writes a letter of referral (with specific questions and clear information)
 - writes a letter with a request for information to other health professionals

4.1.9 Attending

The postgraduate:

- keeps reassuring the patient
- explains to the patient the progress of the illness and the results of new investigations
- involves the patient (or if relevant his guardian or family members) in further decision making
- advises him about the possibilities of self-care, volunteer aid and home care
- stimulates the co-operation and the personal responsibility of the patient
- knows how to deliver bad news and how to attend the patient and his relatives after having done so
- supports chronically and incurably ill people

4.1.10 Reporting and recording

The postgraduate:

- records in a testable, unambiguous and readable manner:
 - the presenting complaint
 - the findings in the diagnostic process (history, physical and mental examination, problem list, differential diagnosis, possible additional investigation, risk factors)
 - the therapy instituted
 - arguments and considerations with respect to the diagnostic as well as the therapeutic process
 - findings from evaluation of the results of treatment
 - communications with the patient/partners/friends
 - the patients attitude towards his disease and the proposed treatment
- knows about storing medical records and about the right of access and of privacy of the patient

4.1.11 Emergencies

The postgraduate:

- performs primary and secondary assessment of patients with medical and/or chiropractic emergencies and after trauma
- performs basic life support (assessment, breathing, circulation) until the arrival of professional emergency medical personnel at the scene
- shows professional behaviour in a crisis situation

4.1.12 Prevention

The postgraduate:

- knows of the health risks to an individual as well as at a collective level and the effects of preventive measures
- knows of frequently occurring relationships between environmental factors and diseases
- is acquainted with some methods for detecting persons and populations at risk
- knows some forms of primary (vaccination), secondary (screening) and tertiary prevention (medical care, social-medical support and attending)

4.1.13 Chiropractic History

The postgraduate:

- has a basic understanding of the development of chiropractic since the beginning of the 20th century and knows of the health risks to an individual as well as at a collective level and the effects of preventive measures
- has an understanding of the transition from experience-based clinical practice to the evidence-based science of today
- knows the historical and contemporary approach to health which is unique to the chiropractic profession (chiropractic principles and philosophy, the role of the chiropractor in the modern health care team)
- knows the history of chiropractic in Switzerland

4.2 Scientific aspects

The following classification has been chosen:

- Principles of scientific investigation
- Meaning of the scientific approach for chiropractic/medical action
- Advancement and maintenance of professional competence

4.2.1 Principles of scientific research

The postgraduate:

- is aware of the obligation to have all research involving humans approved through a research ethics committee
- recognises the need for fully informed and voluntary consent
- is capable of selecting an appropriate research design to answer a specific research question
- is familiar with:
 - general principles, methods (for instance those concerned with the collection of data) and concepts of scientific research
 - fundamentals of statistics
 - reporting, interpretation and evaluation of research
- has actively participated in research and is acquainted with scientific thinking

4.2.2 Meaning of scientific approach for chiropractic/medical action

The postgraduate:

- has a thorough knowledge of the scientific backgrounds of:
 - pathology, symptoms and diagnosis, therapy and prognosis
 - epidemiology
 - preventive health care
- is able to critically approach scientific data
- is able to critically appraise health care procedures, including those of paramedical professions

4.2.3 Advancement and maintenance of professional competence

The postgraduate:

- is aware that after undergraduate chiropractic education postgraduate chiropractic training is necessary, followed by lifelong learning
- is able to find, evaluate and transmit professional information in the literature and other sources, including:
 - searching for the relevant international chiropractic and medical literature (library, computer search)
 - making selections from relevant professional literature and keeping abreast of this literature
 - reading and critically evaluating the international chiropractic and medical literature
- is capable of adopting new concepts

4.3 Personal aspects

The following classification has been chosen:

- Doctor-patient relationship
- Personal performance and interaction of work with private life

4.3.1 Doctor-patient relationship

The postgraduate:

- demonstrates an unbiased, understanding and reliable attitude towards patients, regardless of gender, race, phase of life, social and economic status, education, culture, sexual preferences and philosophy of life
- aims at a doctor-patient relationship as equitable as possible
- copes with his personal feelings, inhibitions, norms and values evoked by contact with a patient or with someone of his close vicinity, such as erotic feelings, irritation, aversion, shame, etc.
- copes with the patient's feelings towards him
- listens to the wishes and complaints of the patient, is receptive to the patient as far as needs, expectations, norms and values are concerned, and takes these into account in his investigation, advice and treatment
- pays attention to the manner in which the patient copes with his complaint(s)
- transmits information tactfully and empathically, in a way the patient understands
- has understanding for the patient's situation and his social background

- shows empathy in the patient and his environment and is aware of possible consequences of disease for family members and further environment (including working environment) of the patient
- considers the personal circumstances of the patient in his examination, advice, treatment and guidance
- keeps a functioning relationship with the patient, even if the patient rejects investigations or treatment
- detects feelings of dissatisfaction in the patient and/or himself with respect to the doctor-patient relationship and makes them a subject of discussion
- reacts adequately, if the relationship is (or threatens to become) disturbed or if there is a threat of too much intimacy. When adequate reaction is no longer possible, he seeks help himself

4.3.2 Personal performance and interaction of work with private life

With respect to personal qualities ideally the postgraduate:

- copes with uncertainty
- copes with acute situations
- copes with stress
- carries responsibility
- recognises his own restrictions
- copes with feelings of helplessness
- is ready to take decisions
- is flexible and can handle rapidly changing situations
- preserves financial independence in relation to third parties

With respect to chiropractic activities the postgraduate:

- is able to judge the limits and possibilities of chiropractic in a given situation
- copes with personal or others mistakes and is not afraid to recognise his own mistakes towards patients and colleagues and is able to learn from them
- copes with complications of clinical actions
- finds a balance between too much and too little interventions and is aware of the risks of over- and undertreatment
- is prepared to engage himself and to feel joint responsibility for the physical, mental and social wellbeing of persons and for all forms of health care
- recognises personal feelings, norms and values in relation to existential questions on life, death, disease and health, and deals with chiropractic and medical ethical questions
- respects the need for confidentiality

With respect to teamwork the postgraduate ideally:

- is able to perform in a group
- is prepared to have his chiropractic work judged and tested by others and is able to judge the medical/chiropractic work of others
- copes with positive and negative criticism
- is prepared to seek the opinion of others at the appropriate time

With respect to private life the postgraduate:

- is aware of the mutual influences between work and private life and strives for a good balance between them, including caring for his own health

4.4 Aspects related to society and the health care system

The following classification has been chosen:

- Structure and function of the health care systems
- Medical and chiropractic ethics
- Legal regulations

4.4.1 Structure and function of health care systems

The postgraduate:

- knows the characteristics and interactions between hospital and community health care and social care
- is aware of the influence and interactions of the structure of the health care system with regard to doctor and patient interaction
- knows about the influence of health care on public health and should understand that public health measures may have an impact on both health and health care
- knows about the effects of interventions in groups and in the environment
- **knows the roles of the different players in the health care system in Switzerland**
- knows the professional organisations and the rules for the relation between colleagues
- is aware of societal influences on the health care system
- is aware of the various patients' associations and groups for self-help
- shows cost-conscious behavior (Kostenbewusstsein)

4.4.2 Medical and chiropractic ethics

The postgraduate:

- identifies ethical aspects of clinical practice such as in clinical research on human beings, diagnostic procedures, therapy and prevention
- is aware of international and national ethical guidelines on various topics (latest revision of the Declaration of Helsinki of the WMA, Guidelines of the Swiss Academy of Medical Sciences)
- can justify and clarify his personal ethical points of view
- shows empathy with the physical or moral suffering of patients also beyond the possibility of relieving them chiropractically and/or medically.
- is aware of possible conflicts of interest between the individual and the community (cost-conscious management as primary care provider, data protection, cultural differences)

4.4.3 Legal regulations

With respect to professional confidentiality the postgraduate:

- takes necessary precautions to maintain confidentiality (verbal, telephone, fax or e-mail communication, charts, written or electronically stored and presentations at educational or research rounds)
- is aware that a physician may not disclose patient information except when expressly authorised by the patient to do so and recognises situations in which third parties have a legitimate interest and right to information:
 - legal requirements in the interest of public health
 - legitimate interest of third parties (e.g. insurance companies)
 - duty to warn threatened individuals
- recognises the need to advise patients of obligatory disclosure of information
- recognises reasonable limits to disclosure, and reveals only the relevant and necessary information, in a situation requiring disclosure to a third party

With respect to informed consent concerning investigation or treatment the postgraduate:

- explains the legal and ethical basis for consent and recognises factors which can alter capacity of consent (e.g. disease, drugs, depression)
- recognises the patient's right to refuse or revoke consent to investigation in research protocol without prejudice to subsequent treatment
- recognises and weighs the right of consent of a minor and of consent of the parents or legal guardians to a chiropractic act
- recognises the problems raised by psychiatric and mentally deficient patients
- recognises the legitimacy of the intentions of impaired patients as they may have been expressed (advance directives)
- recognises the duty to provide necessary emergency care where consent is unavailable

5. PROBLEMS AS STARTING POINTS FOR TRAINING

Here, a problem is defined as a complex of complaints, signs and symptoms (e.g. dyspnoea) which may bring a person to his chiropractor. The problem solving goes beyond the classical exercise of establishing a differential diagnosis; it includes therapeutic, social, preventive, and other interventions. Problems were selected if

- they occur frequently
- even though the problem is rare, rapid and appropriate intervention may be life-saving

Problems which are life-threatening and require urgent intervention are marked with an asterisk (*).

General Symptoms

Musculoskeletal system

Metabolic alterations and abnormal laboratory values

Skin manifestations

Head, face, neck

Ear, nose, mouth, tongue, throat, voice

Eyes

Breast, chest, heart, blood pressure, pulse

Abdomen, stomach, bowels

Bones, joints, back, extremities

Disorders of consciousness, balance, orientation, gait, movement

Mental, behavioural and psychological problems

Other reasons for medical consultation or problems in medical care

Psychosocial and interpersonal problems

The Working Group is still working on this list of chiropractic problems as starting points for chiropractic training.

6. EXPLANATION OF LEVELS AND LETTERS OF DISCIPLINE-RELATED OBJECTIVES

6.1 Explanation of the levels and letters of competence for „Clinical Picture“ and „Further Knowledge“

Level 1 *be able to recognise or place:*

In **Clinical pictures**: the doctor does not have to be able to deal with this clinical picture, but he is supposed to have heard of it. This means that, when confronted with it in the literature or in correspondence, he can place this clinical picture and knows how to acquire more information.

In **Further knowledge**: this level indicates an overview level. The doctor must be able to roughly define the concept and to recognise it as a relevant clinical item or health matter. He knows the epidemiology and how to acquire more information.

In **Pharmacotherapy** this means an overview level on a class of drugs.

In **Basic Science** this implies a level of insight at a sound general medical education level.

Level 2 *be able to cope with in practice:*

In **Clinical pictures**: the doctor must be able to cope with this clinical picture in practice. This means, that in an actual situation he must be able to consider this clinical picture as a diagnosis. This assumes knowledge of the clinical picture. The extent of this knowledge varies according to the clinical picture, but contains at least knowledge of the presentations and complaints, and knowledge of diagnostic and therapeutic possibilities. It includes knowledge of the relevant pathology, histology and epidemiology, as well as of the pathophysiology (or psychodynamics for certain psychiatric items).

In **Further knowledge**: this level indicates a level of insight at a professional level. It includes the ability to describe the notion and its epidemiology, interpret findings and drawing a rough plan of intervention or protection if relevant. In **Pharmacotherapy** this implies knowledge of the mechanism of action, kinetics (if relevant), indication, dosage, side effects and interactions of the drug.

In **Basic Science** this implies a level of insight at a professional medical and/or chiropractic level.

Note: If the same item appears with different levels of competence under more than one discipline, the highest rating applies

D

The **diagnosis** must be made personally by means of physical examination, simple aids or additional investigation requested and interpreted by the doctor himself (e.g. chest radiograph, electrocardiogram). *For example the letter D does not apply for breast cancer, since its diagnosis requires taking and interpreting a biopsy, knowledge beyond a graduate in medicine.*
Attribution of this letter requires level 2 of competence.

T

The **therapy** must be carried out by the doctor personally, referring to the most common therapy for an uncomplicated illness. Attribution of this letter requires level 2 of competence.

C

The **case management** must be carried out by the doctor personally, referring to the most common case management for a case. Attribution of this letter requires level 2 of competence.

E

The doctor has to be able to perform primary and secondary assessment of patients and initiate **emergency measures**. *The letter E may be attributed even in absence of the letter D. The doctor in this case is not required to establish a firm diagnosis; he may act on a well founded suspicion.*
Example: Referral to hospital in case of suspicion of bacterial meningitis

L

The doctor must have knowledge of **legal aspects**:

- at level 1: knowledge that a law exists
- at level 2: knowledge of law

P

The doctor must be able to identify and initiate appropriate **preventive measures**.

Ch

Ch defines a particularly relevant problem for **Chiropractic care**.

6.2 Explanation of the levels of competence for “Skills”

Level 1 only theory:

the doctor must at least have the theoretical knowledge (principle, indication, contraindication, burden, performance, complications) of the skill.

Level 2 seen or have had demonstrated:

the doctor has at least the theoretical knowledge regarding the skill and has had demonstrated the performance of the skill in question (live, by simulator, video or other media).

Level 3 apply / perform:

the doctor must at least have the theoretical knowledge regarding the skill; besides he has performed the skill in question under supervision at least several times (live or simulator).

Level 4 routine:

the doctor must have the theoretical knowledge regarding the skill and has experience in using and performing the skill.

Note: If the same skill appears with different levels of competence under more than one discipline, the highest rating applies.

7. DISCIPLINE RELATED OBJECTIVES

Specific Chiropractic Competences

Clinical Picture

arthritis of the spine

- diffuse idiopathic skeletal hyperostosis (DISH, M. Forestier)	2	D	-	-	-	Ch
- enteropathic spondyloarthropathies	2	D	-	-	-	Ch
- Morbus Bechterew (spondylitis ankylosans)	2	D	-	-	-	Ch
- psoriatic arthritis (PsA)	2	D	-	-	-	Ch
- Reiter's syndrome	2	D	-	-	-	Ch
- rheumatoid arthritis	2	D	-	-	-	Ch
- sacroiliitis	2	D	-	-	-	Ch

neurological disorders

- general neurological semiology (signs and symptoms)	1	-	-	-	-	Ch
- headache due to metabolic pathologies	2	-	-	-	-	Ch
- infantile encephalopathies	1	-	-	-	-	Ch
- amyotrophic lateral sclerosis (ALS)	2	-	-	-	-	Ch
- anomalies of the spinal cord	2	-	-	-	-	Ch
- benign positioning vertigo	2	D	T	-	-	Ch
- borreliosis	2	-	-	-	-	Ch
- brain affections (tumors, vascular accidents, trauma, infections, loss of consciousness)	1	-	-	-	-	Ch
- Brown-Séquard syndrome	2	-	-	-	-	Ch
- bulbar palsy	2	-	-	-	-	Ch
- carpal tunnel syndrome	2	D	-	-	-	Ch
- cauda equina syndrome	2	D	-	E	-	Ch
- cauda equina syndrome	2	D	-	E	-	Ch
- central facial palsy/paralysis	2	D	-	E	-	Ch
- cerebral infarction	2	-	-	E	-	Ch
- cervicogenic headache	2	D	T	-	P	Ch
- clinical syndromes in cervical myelopathy	2	D	-	-	-	Ch
- cluster headache	2	D	-	-	-	Ch
- developmental anomaly (spina bifida vera, meningocele, myelocele)	1	-	-	-	-	Ch
- Horner's syndrome	2	D	-	-	-	Ch
- hydrocephalus	2	-	-	-	-	Ch
- intracerebral haemorrhage	2	-	-	E	-	Ch
- medication induced headache	2	-	-	-	-	Ch
- meningitis	2	-	-	E	-	Ch
- migraine	2	D	T	-	P	Ch
- multiple sclerosis	2	-	-	-	-	Ch
- muscular dystrophy, general	2	-	-	-	-	Ch
- myelopathy due to stenosis of spinal canal	2	-	-	-	-	Ch
- myopathies (symptoms, clinical findings)	1	-	-	-	-	Ch
- neurofibromatosis (Von Recklinghausen's disease)	2	-	-	-	-	Ch

- Parkinson's disease	2 D - - - Ch
- peripheral facial palsy/paralysis	2 D - - - Ch
- peroneal palsy	2 D - - - Ch
- polyneuropathy	2 D - - - Ch
- posttraumatic headaches (commotio, contusio cerebri)	2 - - - - Ch
- psycho organic affections	1 - - - - Ch
- psycho somatic reactions	1 - - - - Ch
- radial nerve palsy	2 D - - - Ch
- radicular syndromes, cervical and lumbar	2 D T - - Ch
- shoulder-arm-syndrome (thoracic outlet syndrome, impingement syndrome)	2 D T - - Ch
- specific neurological syndromes (head-and facial pain, syringomyelia, Arnold Chiari, multiple sclerosis, progressive spinal amyotrophy, ALS, bulbar paralysis, hereditary and degenerative affections, epilepsy)	1 - - - - Ch
- spinal cord affections	2 D - - - Ch
- spinal stenosis	2 D T E - Ch
- subarachnoid haemorrhage	2 - - - - Ch
- symptomatic headaches (epidural and subdural haematoma, sinus venosus thrombosis, increased intracranial pressure - e.g. csf pressure increase-)	2 D - E - Ch
- symptomatic headaches (subarachnoidal bleeding, hypertensive crisis, carotis/vertebralis dissection, arteriitis temporalis - Riesenzellerarteriitis in the context of polymyalgia rheumatica-)	2 D - E - Ch
- syndromes of peripheral spinal nerve lesions	2 D - - - Ch
- tension headache	2 D T - P Ch
- transient ischaemic attacks (TIA)	2 - - E - Ch
- traumatic spinal cord lesion	2 - - E - Ch
- trigeminal neuralgia	2 D - - - Ch
- ulnar nerve palsy	2 D - - - Ch
- vascular myelopathy (anterior spinal artery syndrome)	2 - - - - Ch
- vertebral artery insufficiency	2 D - E - Ch
- vestibular neuritis	2 - - - - Ch
- Wallenberg's syndrome	2 D - E - Ch

orthopaedic disorders

- claudications (neurogenic or spinal, vascular)	2 D - - - Ch
- achondroplasia	1 - - - - Ch
- acute osteomyelitis	2 - - - - Ch
- aseptic necrosis of bone	2 - - - - Ch
- chondromalacia patellae	2 D - - - Ch
- club foot	2 D - - - Ch
- congenital disorders	2 - - - - Ch
- degenerative joint disease (idiopathic, predisposing factors, post traumatic treatment options)	2 D - - P Ch
- degenerative lesions of peripheral articulations	2 D - - - Ch
- Dupuytren's contracture	2 D - - - Ch
- fibrous dysplasia	1 - - - - Ch
- genu valgum (knock knee)	2 D - - - Ch

- haemophilic arthropathies	1	-	-	-	-	Ch
- Marfan's syndrome	2	-	-	-	-	Ch
- neurological arthropathies (tabes, syringomyelia, diabetes)	2	-	-	-	-	Ch
- osteoarthritis deformans	2	D	-	-	-	Ch
- osteogenesis imperfecta	2	-	-	-	-	Ch
- osteomalacia	2	-	-	-	-	Ch
- osteoporosis	2	D	-	-	P	Ch
- paediatric orthopaedic exam	2	-	-	-	-	Ch
- Paget's disease	2	D	-	-	-	Ch
- pes planus	2	D	-	-	-	Ch
- specific syndromes (TMJ disorders, stylalgia, Costen syndrome, ischemic muscular contractures, Glomangioma)	2	D	T	-	-	Ch
- the elbow (epicondylitis, nerve entrapment syndrome, dislocation, instabilities, osteoarthritis)	2	D	T	-	-	Ch
- the hindfoot (tendinitis, Achilles' injuries, ligamentous affections, joint instability)	2	D	T	-	P	Ch
- the hip joint (DJD, osteonecrosis, impingement, fracture of proximal femur)	2	D	T	-	-	Ch
- the knee (congenital and degenerative disease, osteonecrosis, cartilagenous and ligamentous injuries, patello-femoral misalignment and dislocations, bursitis)	2	D	T	-	-	Ch
- the mid and forefoot (deformities of the arches, hallux valgus. varus, rigidus, Morton's neuralgia, tarsal tunnel syndrome, diabetic foot)	2	D	-	-	-	Ch
- the paediatric hip joint (congenital and acquired disorders, DDH, transient synoviitis, septic arthritis, Legg-Calvé-Perthes disease, slipped capital femoral epiphysis)	2	D	-	-	-	Ch
- the sternoclavicular and acromioclavicular joints (sprains, dislocations, fractures)	2	D	-	-	-	Ch
- the wrist and hand (tendinitis, synoviitis, ganglions, nerve entrapment syndromes)	2	D	-	-	-	Ch
- thoracic outlet syndrome	2	D	T	-	-	Ch

rheumatological disorders

- inflammatory disorders (pyogenic, non pyogenic, non specific) and rheumatic diseases	1	-	-	-	-	Ch
- arthritis associated with bacterial infections, viral infections and tick bites	1	-	-	-	-	Ch
- Behcet's disease	1	-	-	-	-	Ch
- collagen diseases (systemic lupus erythematosus, scleroderma, polyarteriitis nodosa, dermatomyositis)	2	-	-	-	-	Ch
- Complex Regional Pain Syndrome (CRPS 1: sympathetic nervous system, algodystrophia, Morbus Sudeck. CRPS 2: former causalgia-specific injured peripheral nerve)	2	-	-	-	-	Ch
- enteropathic arthritis	2	-	-	-	-	Ch
- erythema multiforme	1	-	-	-	-	Ch
- erythema nodosum	2	-	-	-	-	Ch
- fibromyalgia	2	D	T	-	-	Ch
- Henoch-Schönlein purpura	1	-	-	-	-	Ch
- intermittent arthritis of the hip	2	-	-	-	-	Ch
- metabolic arthropathies (gout, chondrocalcinosis, alcaptonuria, etc.)	2	-	-	-	-	Ch
- metabolic disorders (osteomalacia, vit. D, osteoporosis)	2	-	-	-	-	Ch

- monoarticular arthritis	2 D - - - Ch
- non-articular rheumatism (humero-scapular periarthropathy, periarthropathy of the hip, humerus, epicondylitis, tendonitis, bursitis, enthesitis)	2 D T - P Ch
- polymyalgia rheumatica	2 D - - - Ch
- polymyositis / dermatomyositis	2 - - - - Ch
- psoriatic arthritis	2 D - - - Ch
- Raynaud's phenomenon	2 D - - - Ch
- Reiter's disease	2 D - - - Ch
- rheumatic fever	2 D - - P Ch
- rheumatoid arthritis	2 D - - P Ch
- sarcoidosis	1 - - - - Ch
- septic arthritis	2 - - E - Ch
- septic spondylitis, spondylodiscitis	2 - - E - Ch
- Sjögren's disease	1 - - - - Ch
- temporal arteriitis	2 - - - - Ch
- vasculitis not otherwise classified	1 - - - - Ch
- Wegener's granulomatosis	1 - - - - Ch

spinal affections

- SIJ in pregnancy, at and post childbirth	2 D T - P Ch
- thoracic pain (differential diagnosis)	2 D - E - Ch
- acute lumbar disc disease (including acute and chronic radiculopathy)	2 D T E - Ch
- cervical disc disease (acute versus chronic)	2 D T E P Ch
- cervical spondylogenic radiculopathy	2 D T E - Ch
- chronic lumbar disc disease	2 D T - P Ch
- costovertebral joint affections	2 D T - - Ch
- degenerative and post-traumatic spinal osteoarthritis, periostosis	2 D T - - Ch
- degenerative chondropathies	2 D T - - Ch
- disc hernia (mechanisms, symptoms, radiological and clinical signs, developmental stages, prognosis)	2 D T E P Ch
- discitis, spondylodiscitis, epidural abscess	2 D - E - Ch
- disco-radicular conflict	2 D T E P Ch
- DJD (intervertebral, spondylarthrosis, spondylosis, uncovertebral, costo-vertebral, interspinous, zygapophyseal joints, atlas-axis, sacroiliac)	2 D T - P Ch
- functional and degenerative changes of the sacroiliac joints and pelvic ring	2 D T - - Ch
- liver cyst e.g. echinococcus cyst	1 - - - - Ch
- mechanisms of acute vertebral functional block (e.g. torticollis, lumbago)	2 D T - P Ch
- non-specific low back pain	2 D T - P Ch
- Overuse and insufficiency of the intervertebral disc	2 D - - P Ch
- pelvic instability, pelvic subluxation, post-partum diastasis of the pubic symphysis, sacroiliac functional blocks	2 D T - P Ch
- post-menopausal trophostatic syndrome (pseudo-spondylolisthesis)	2 D T - P Ch
- scoliosis (infantile, juvenile, adolescent, adult, neuromuscular, congenital, traumatic, pathological scoliosis; classification)	2 D T - P Ch
- spinal deformation/deformity (kyphosis, scoliosis, lordosis)	2 D T - P Ch

- spondylolisthesis	2 D T - P Ch
- spondylolysis	2 D - - - Ch
- stenosis of spinal canal, lateral recess and IVF	2 D - - - Ch
- thoracic disc disease	2 D T E - Ch
- Tietze's syndrome	2 D T - - Ch
- torticollis in adults	2 D T E - Ch
- types of infections (TBC, bacterial, fungal)	2 D - - - Ch

the paediatric spine

- os odontoideum (normal variants and anomalies)	2 D - - - Ch
- Scheuermann's disease (juvenile kyphosis)	2 D T - P Ch
- Chiari malformation	2 D - - - Ch
- congenital anomalies of the cervical spine (e.g. basilar impression; instability)	2 D - - - Ch
- femoropatellar pain syndromes	2 D T - - Ch
- idiopathic osteonecrosis and osteochondrosis and others (Freiberg, Köhler Kienböck, Osgood-Schlatter, Sever, Legg Perthes, epiphysiolysis capitis femoris)	2 D - - - Ch
- Klippel-Feil-Syndrome	2 D - - - Ch
- non specific back pain in children and adolescents	2 D T - P Ch
- normal variants of the cervical spine	2 D - - - Ch
- rheumatological problems in childhood (juvenile chronic arthritis (M. Still), juvenile rheumatoid arthritis, juvenile psoriasis associated arthritis, juvenile leg pain)	2 D - - - Ch
- scoliosis (juvenile, adolescent , congenital, idiopathic and neuromuscular)	2 D T - P Ch
- Sprengel's deformity	2 D - - - Ch
- torticollis in children	2 D T - - Ch
- transient synovialitis of the hip	2 D - - - Ch

trauma of the spine

- cervical acceleration/deceleration injuries and WAD	2 D T E - Ch
- specific fracture types of the cervical spine (Jefferson`s fracture; Hangman`s fracture; odontoid fracture)	2 D - E - Ch
- late sequelae of spinal trauma	2 D T - P Ch
- neurological and vascular lesions following spinal trauma	2 D - - P Ch
- spinal fractures (classification, stable, unstable)	2 D - E - Ch
- sprains and strains	2 D T E - Ch

tumors of the spine

- metastasis of the spine	2 D - - - Ch
- primary tumors of the spine (overview of the most common primary benign and malignant tumors of the spine)	2 D - - - Ch
- tumor like disease (multiple myeloma, lymphomas)	2 D - - - Ch

Skills

accidents and emergencies

- application of a bandage	4	-	-	-	-	-
- assessment and care of external injuries (wounds, bleeding, burns, distorsion, dislocation, fractures)	3	-	-	-	-	-
- basic life support (assessment, breathing, circulation)	4	-	-	-	-	-
- first aid	4	-	-	-	-	-
- Heimlich manoeuvre	3	-	-	-	-	-
- stopping a haemorrhage (direct pressure, pressure point, pressure bandage)	3	-	-	-	-	-

anamnesis

- chief complaint (reason for consulting, onset, course, duration, topography and nature of symptoms, intensity, rhythm, exacerbation and remission of the pain)	4	-	-	-	-	-
- family history	4	-	-	-	-	-
- functional handicap	3	-	-	-	-	-
- general health	4	-	-	-	-	-
- past history	4	-	-	-	-	-
- previous examinations, results, documentations, treatments	4	-	-	-	-	-
- psychosocial history	4	-	-	-	-	-

examination of the locomotor system

- shoulder articulation	4	-	-	-	-	-
- abdominal wall (palpation of tender points, indurations and masses)	4	-	-	-	-	-
- abdominal wall (palpation of the renal lodges, urinary tract and bladder)	3	-	-	-	-	-
- abdominal wall (sensibility, motoricity and tonicity)	4	-	-	-	-	-
- angiography, incl. digital subtraction	1	-	-	-	-	-
- ankle and foot articulation	4	-	-	-	-	-
- assessment of range of joint motion (active and passive; spinal and peripheral)	4	-	-	-	-	-
- axial compression, manual extension of the cervical vertebrae	4	-	-	-	-	-
- back musculature (trophic state, tonicity, asymmetries)	4	-	-	-	-	-
- coccygeal palpation (pain and mobility on passive movements, contracture and crepitation)	4	-	-	-	-	-
- cutaneous sensibility	4	-	-	-	-	-
- detailed orthopaedic and neurological examination of the extremities	4	-	-	-	-	-
- detailed orthopaedic and neurological examination of the spine	4	-	-	-	-	-
- duplex-scan of vessels	1	-	-	-	-	-
- elbow articulation	4	-	-	-	-	-
- EMG	1	-	-	-	-	-
- gait pattern (locomotor asymmetry, claudications)	4	-	-	-	-	-
- hip articulation	4	-	-	-	-	-
- inspection at rest	4	-	-	-	-	-
- inspection in motion	4	-	-	-	-	-
- inspection of joints	4	-	-	-	-	-

- inspection of the habitus and posture (frontal and sagittal)	4	-	-	-	-	-
- knee articulation	4	-	-	-	-	-
- motoricity	4	-	-	-	-	-
- palpation for pain on vertical pressure (e.g. pressing down on shoulders)	4	-	-	-	-	-
- palpation for tenderness	4	-	-	-	-	-
- palpation of skin, tendons, joints	4	-	-	-	-	-
- percussion	4	-	-	-	-	-
- percussion for tenderness	4	-	-	-	-	-
- sacroiliac signs	4	-	-	-	-	-
- superficial, normal and deep palpation	4	-	-	-	-	-
- trophic signs	4	-	-	-	-	-
- vertebro-pelvic dynamics (active and passive inspection, static and motion palpation)	4	-	-	-	-	-
- wrist, hand and finger articulations	4	-	-	-	-	-

general examination (items not covered elsewhere)

- assessment of aptitude for service with fire brigade or the military	4	-	-	-	-	-
- assessment of work capacity	4	-	-	-	-	-
- axes of legs on standing (genu valgum, genu varum)	4	-	-	-	-	-
- breast examination (inspection, palpation)	3	-	-	-	-	-
- chest, thoracic spine (tenderness on compression and/or percussion)	4	-	-	-	-	-
- chiropractic emergencies and trauma (primary and secondary assessment)	4	-	-	-	-	-
- feet on standing (pes planus, pes valgus, etc.)	4	-	-	-	-	-
- gait (limp, pareses, etc.)	4	-	-	-	-	-
- general physical examination (inspection, percussion, auscultation, palpation, measurements, circulatory signs)	4	-	-	-	-	-
- general state (basic mood, development, posture, asymmetries of the body)	4	-	-	-	-	-
- head, cervical spine (mobility, pain)	4	-	-	-	-	-
- iliosacral joints and pelvis (including muscles, motility, pain, atrophies)	4	-	-	-	-	-
- inspection of groin during increased abdominal pressure	3	-	-	-	-	-
- lower extremities (knee, ankle, and relevant structures and muscles, motility, pain, stability, swelling, meniscus signs, position)	4	-	-	-	-	-
- measurement of blood pressure (age adapted)	4	-	-	-	-	-
- mental status	4	-	-	-	-	-
- neurological physical examination	4	-	-	-	-	-
- palpation of hernia	3	-	-	-	-	-
- palpation of penis, testes, epididymides, spermatic duct	2	-	-	-	-	-
- patient history including from third party (personal, family, social history)	4	-	-	-	-	-
- posture, bodybuild (upright, stooping, athletic)	4	-	-	-	-	-
- rectal examination, including palpation	2	-	-	-	-	-
- shoulder girdle (with scapula, clavicle, acromioclavicular, sternoclavicular shoulder articulation, including relevant muscles)	4	-	-	-	-	-
- spine standing and supine (scoliosis, kyphosis, lateral tilt, Schober, position-dependent pain, paravertebral muscles)	4	-	-	-	-	-
- test for arterial insufficiency (Ratschow test)	3	-	-	-	-	-

- upper extremities (elbow, wrist, finger joints and relevant structures and muscles: function, motility, shape, tenderness, etc.) 4 - - - - -
- varicose veins (Trendelenburg and Perthes test) 3 - - - - -

general examination of a patient

- abdominal organs palpation and percussion 3 - - - - -
- cardiovascular system 3 - - - - -
- general aspect and state of nutrition 4 - - - - -
- general state 4 - - - - -
- prostate palpation (volume, consistency and pain) 2 - - - - -
- respiratory tract 3 - - - - -

neurological examination

- abdominal reflexes 4 - - - - -
- anal reflex 3 - - - - -
- assessment of agnosia 3 - - - - -
- assessment of aphasia 3 - - - - -
- assessment of apraxia 3 - - - - -
- assessment of concentration 3 - - - - -
- assessment of cranial nerves V, VII to XII 4 - - - - -
- assessment of diplopia 3 - - - - -
- assessment of discriminative sensations (e.g. stereognosis) 4 - - - - -
- assessment of extinction phenomenon 3 - - - - -
- assessment of extra-ocular movements 4 - - - - -
- assessment of level of consciousness by means of Glasgow coma scale 2 - - - - -
- assessment of light touch 4 - - - - -
- assessment of memory 3 - - - - -
- assessment of muscle strength 4 - - - - -
- assessment of nystagmus 4 - - - - -
- assessment of orientation 4 - - - - -
- assessment of passive stretch 4 - - - - -
- assessment of position sense 4 - - - - -
- assessment of sense of pain 4 - - - - -
- assessment of sense of smell 4 - - - - -
- assessment of sense of temperature 4 - - - - -
- assessment of strength of individual muscles 4 - - - - -
- assessment of vibration 4 - - - - -
- assessment of visual fields by confrontation 4 - - - - -
- autonomic signs (sweating etc.) 4 - - - - -
- cervical radicular test 4 - - - - -
- corneal reflex 4 - - - - -
- cranial nerves (control) 4 - - - - -
- examination of motor system 4 - - - - -
- examination of patients affected by neurological diseases and susceptible to consult a chiropractor 4 - - - - -
- examination of sensory system 4 - - - - -

- finger-to-nose test	4	-	-	-	-	-	-
- fundoscopy	3	-	-	-	-	-	-
- general inspection (posture, habitus, involuntary movements)	4	-	-	-	-	-	-
- grasp reflex	2	-	-	-	-	-	-
- heel-to-shin test	4	-	-	-	-	-	-
- inspection of gait (normal, on heels, on toes, hopping in one place, heel-to-toe)	4	-	-	-	-	-	-
- inspection of pupils (size and shape)	4	-	-	-	-	-	-
- inspection of width of palpebral fissure	4	-	-	-	-	-	-
- involuntary movements (principal types)	4	-	-	-	-	-	-
- Lasègue's sign	4	-	-	-	-	-	-
- masseter reflex	3	-	-	-	-	-	-
- muscle strength (appreciation of isolated and muscle groups, examination technique, topological deductions, affection of one nerve, of multiple nerves, central affection, muscular affection)	4	-	-	-	-	-	-
- paediatric neurological examination	3	-	-	-	-	-	-
- plantar response (Babinski)	4	-	-	-	-	-	-
- pupillary reaction to close objects	4	-	-	-	-	-	-
- pupillary reaction to light	4	-	-	-	-	-	-
- recovering of balance after a push	4	-	-	-	-	-	-
- reflexes (deep-tendon reflexes, facilitation - Jendrassik-, cutaneous reflexes - corneal reflex, abdominal reflex -, pyramidal signs)	4	-	-	-	-	-	-
- Romberg's test	4	-	-	-	-	-	-
- sensibility appreciation (examination of all the different aspects, topological deductions)	4	-	-	-	-	-	-
- shallow knee bend	4	-	-	-	-	-	-
- signs of meningeal irritation	4	-	-	-	-	-	-
- snout reflex	2	-	-	-	-	-	-
- tendon reflexes (biceps reflex, triceps reflex, knee reflex, ankle reflex)	4	-	-	-	-	-	-
- test of visual acuity	3	-	-	-	-	-	-
- testing for dysdiadochokinesis	4	-	-	-	-	-	-
- tongue, inspection at rest	4	-	-	-	-	-	-
- tonicity (appreciation, evaluation's method, hyper-hypotonicity)	4	-	-	-	-	-	-
- trophicity (isolated muscular atrophy, systematic atrophy, nails' alterations, ischemic contractures)	4	-	-	-	-	-	-
- voluntary movements and their control (tests, gait anomalies)	4	-	-	-	-	-	-

patient and practice management

- free time- and sports-related chiropractic problems	3	-	-	-	-	-	-
- job-related chiropractic problems	3	-	-	-	-	-	-
- travel-related chiropractic problems	3	-	-	-	-	-	-

Further Knowledge

contraindications and complications to chiropractic manual therapy

- complications of spinal, esp. cervical chiropractic manual therapy 2 - T - - Ch
- contraindications to chiropractic treatment 2 - - - - Ch
- red and yellow flags 2 - T - - Ch
- screening procedures for the contraindication of chiropractic treatment (adjustment/spinal manipulation) 2 - - - - Ch

neurological knowledge

- brain stem lesions not otherwise classified 2 D - - - Ch
- cervical acceleration/deceleration injuries 2 D - - - Ch
- disorders of the autonomic nervous system 2 D - - - Ch
- internuclear ophthalmoplegia and gaze nystagmus 2 D - - - Ch
- metastasis to the brain 2 D - - - Ch
- neurogenic bladder 2 D - - - Ch
- neuropathy of brachial plexus 2 D - - - Ch
- pathophysiology of spinal nerve roots as related to sciatica and disc herniation (mechanical effects; biologic and biochemical effects, biologic effects of disc tissue, nucleus pulposus) 2 D - - - Ch
- raised intracranial pressure 2 D - - - Ch
- restless legs 2 D - - - Ch
- secondary headaches not otherwise classified (glaucoma, sinusitis, cerebral venous thrombosis etc.) 2 D - - - Ch
- spinal metastasis 2 D - - - Ch

orthopaedic knowledge

- principles of fracture treatment 2 - - - - Ch
- scoliosis (Cobb measurement, progression monitoring, referral) 2 - - - - Ch
- spondylolisthesis (classification of Newman and radiobiological features, Meyerding grading) 2 - - - - Ch
- tumors of the musculoskeletal system (primary, metastasis; overview and principles) 2 - - - - Ch

referral

- indications for consultation or for specialized treatment (in orthopaedics, neurology, internal medicine, etc) 2 - - - - Ch
- knowledge of spinal surgery (common indications, current techniques, regular up-date of knowledge in order to refer patients correctly and to give adequate and professional explications) 2 - - - - Ch
- long-term treatments (indications and contraindications) 2 - - - - Ch

theoretical aspects of chiropractic treatment

- choice of force, depth, speed and release 2 - - - - Ch
- choice of the appropriate technique 2 - - - - Ch
- choice of the articulation or the motor segment to be manipulated/adjusted 2 - - - - Ch

- choice of the direction in which an adjustment/a manipulation has to be executed	2	-	-	-	-	Ch
- different contact points on the hand used in manipulating the spine, the pelvis, the skull and the peripheral articulations	2	-	-	-	-	Ch
- execution of the proper manipulation, irruption into the paraphysiological space	2	-	-	-	-	Ch
- passive mobilisation within the physiological limits of joint play	2	-	-	-	-	Ch
- perception of tissue resistance	2	-	-	-	-	Ch
- philosophical aspects concerning the term manipulation (SMT, chiropractic adjustments)	2	-	-	-	-	Ch
- possible effects of a chiropractic intervention on a normal and on a pathological segment of the locomotor system (local and distal mechanical aspects , somato-somatic and somato-visceral reflexes, relational, touch, etc)	2	-	-	-	-	Ch
- possible reactions to a chiropractic treatment (musculature, temporary exacerbations, unpleasant reactions, neurovegetative reaction)	2	-	-	-	-	Ch
- preparatory means to relax the musculature (massage, electrotherapy, hydrotherapy, reflex therapy, etc.)	2	-	-	-	-	Ch
- rule of the painless direction and the contrary movement	2	-	-	-	-	Ch
- specific aspects of paediatric and geriatric adjustments/manipulations	2	-	-	-	-	Ch
- the manipulative crack: mechanism, the refractory period and its significance	2	-	-	-	-	Ch

therapy and patient management

- adjunctive therapeutic measures (at home or in specialized institutions, immobilisation, cold, heat, water therapies, massage, gymnastics, foot orthotics)	2	-	T	-	-	Ch
- adult scoliosis (clinical and radiological presentations; treatment options)	2	D	T	-	-	Ch
- basic knowledge of pharmacology, surgery, psychotherapy	2	-	-	-	-	Ch
- chiropractic approach in elderly patients	2	-	T	-	-	Ch
- chiropractor-patient relationship (psychosomatic aspects, bio-psycho-social model)	2	-	T	-	-	Ch
- clinical and laboratory evidence (based on signs, symptoms and laboratory-analysis) of the presence, the deficiency or the excess of proteins, carbohydrates, water, fats, vitamins and mineral salts, etc.	2	-	-	-	-	Ch
- detoxification principles for the promotion of health and as a healing factor (fasting, etc.)	1	-	-	-	-	Ch
- dietary guidance of obese patients and/or patients presenting eating disorders (anorexia, bulimia, etc.)	2	-	-	-	-	Ch
- electrotherapy (low, middle and high frequency currents, ultrasound, infrared and ultraviolet)	2	-	T	-	-	Ch
- epidemiology of spinal problems	2	-	-	-	-	Ch
- ergonomics	2	-	T	-	-	Ch
- food preparation and combination, bad habits (single food diet, over-cooking, raw food) diets (the zone diet, high-protein diets, Atkin's diet, etc)	1	-	-	-	-	Ch
- interventional radiology, indications: posterior facet joint injections, sacroiliac articulations, epidural injections	1	-	-	-	-	Ch

- knowledge in physical re-education (endurance, strength, mobility)	2	-	T	-	-	Ch
- knowledge of basic first aid	2	-	T	E	-	Ch
- knowledge of muscular and articular injections (trigger points, etc.)	1	-	-	-	-	Ch
- knowledge of standard osteopathic treatment techniques: muscle energy, cranio sacral, myofascial release, strain – counterstrain, etc.	2	-	T	-	-	Ch
- manual therapeutic measures (muscle relaxation techniques, general passive joint mobilisation, specific passive chiropractic joint mobilisation techniques without and with impulse, chiropractic reflex therapies)	2	-	T	-	-	Ch
- mechanical devices (traction, flexion traction, walking carpet with/without traction)	2	-	T	-	-	Ch
- nutrition of the child and pregnant woman; nutrition during sports activities and for specific illnesses	2	-	-	-	-	Ch
- rehabilitation	2	-	T	-	-	Ch
- specific procedures in paediatric care	2	-	T	-	-	Ch
- the role of nutrition in the control of pain and inflammation	2	-	-	-	-	Ch
- treatment procedure (documentation, frequency, time interval, indicators, subjective and objective criteria)	2	-	T	E	-	Ch
- up-to-date information on alternative medicines (acupuncture, homeopathy, phytotherapy, Chinese medicine, anthroposophical medicine)	1	-	-	-	-	Ch
- writing clinical reports and diverse medical excuses (certificates-dispenses-exemptions from work, sports etc.)	2	-	-	-	-	Ch

Basic Science

Further Knowledge

anatomy

- anatomy and histology of bones, periosteum, spinal cord, articular cartilages, menisci, joint capsule, ligaments and bursa	2	-	-	-	-	-
- anatomy of the brain and spinal cord	2	-	-	-	-	-
- anatomy of the nose, sinuses, ear and eye	1	-	-	-	-	-
- anatomy of the spine and pelvis	2	-	-	-	-	-
- anatomy of viscera	1	-	-	-	-	-
- autochthonous vertebral muscles	2	-	-	-	-	-
- autonomous nervous system	2	-	-	-	-	-
- cerebral and medullary blood circulation (arterial and venous)	2	-	-	-	-	-
- cerebral and medullary meninges	2	-	-	-	-	-
- classification of articulations	2	-	-	-	-	-
- embryology of the spine	2	-	-	-	-	-
- functions of the spinal joints	2	-	-	-	-	-
- functions of the spine and intervertebral discs	2	-	-	-	-	-
- genital organs of man and woman; the perineum	1	-	-	-	-	-
- histology of striated muscles and tendons	2	-	-	-	-	-
- histology of the nervous tissues	2	-	-	-	-	-
- muscles of the abdominal wall; their innervation and functions	2	-	-	-	-	-
- muscles of the face and of mastication	2	-	-	-	-	-
- muscles of the lower limbs and the pelvis	2	-	-	-	-	-
- muscles of the shoulder girdle and the upper extremity	2	-	-	-	-	-
- muscles of the thorax and diaphragm; their innervation and functions	2	-	-	-	-	-
- peripheral articulations	2	-	-	-	-	-
- peripheral nervous system, plexus and nerves	2	-	-	-	-	-
- spinal muscles	2	-	-	-	-	-
- the arterial and venous systems	2	-	-	-	-	-
- the endocrine glands	1	-	-	-	-	-
- the lymphatic system	2	-	-	-	-	-

biochemistry

- acids, bases	1	-	-	-	-	-
- ADN	1	-	-	-	-	-
- glucides	1	-	-	-	-	-
- main minerals and organic components	1	-	-	-	-	-
- main types of chemical reactions	1	-	-	-	-	-
- metabolic pathways	1	-	-	-	-	-
- metabolisme	1	-	-	-	-	-
- nutrients	1	-	-	-	-	-
- production of energy (ATP)	1	-	-	-	-	-
- structure, function and properties of main bio molecules	1	-	-	-	-	-
- vitamines: A, E, C, B1, B6, D3 and cholecalciferol	1	-	-	-	-	-

ethical principles

- autonomy	2	-	-	-	-	-
- beneficence	2	-	-	-	-	-
- dealing effectively with complaints	2	-	-	-	-	-
- duties of a doctor (deontology and consequentialism)	2	-	-	-	-	-
- integrity	2	-	-	-	-	-
- non-maleficence	2	-	-	-	-	-

general pathology

- cell and tissue injuries	2	-	-	-	-	-
- chromosomal defects and genetic diseases	1	-	-	-	-	-
- derangements of the fluid and electrolyte balance	2	-	-	-	-	-
- general immunology and immunopathology	2	-	-	-	-	-
- general pathology of bones, joints and soft tissues	2	-	-	-	-	-
- general pathology of infectious disease	1	-	-	-	-	-
- general pathology of the blood circulation and hematopathology	2	-	-	-	-	-
- general pathology of the central and peripheral nervous system	2	-	-	-	-	-
- general pathology of the digestive system	1	-	-	-	-	-
- general pathology of the genitals	1	-	-	-	-	-
- general pathology of the kidney and the lower urinary tract	1	-	-	-	-	-
- general pathology of the liver	1	-	-	-	-	-
- general pathology of the respiratory system	1	-	-	-	-	-
- inflammation	2	-	-	-	-	-
- methods of examination in pathology	1	-	-	-	-	-
- nutritional diseases	1	-	-	-	-	-
- physical and chemical injuries	1	-	-	-	-	-
- radiation induced damage	2	-	-	-	-	-
- tumors	2	-	-	-	-	-

legal responsibilities

- doctor-patient relationship	2	-	-	-	-	-
- informed consent	2	-	-	-	-	-
- Radioprotection	2	-	-	-	-	-
- relevant legislation	2	-	-	-	-	-
- rights and obligations of the chiropractor	2	-	-	-	-	-
- rights and obligations of the patients	2	-	-	-	-	-
- risk management	2	-	-	-	-	-
- uncertainty and error in decision making	2	-	-	-	-	-
- writing of chiropractic legal reports	2	-	-	-	-	-

neuropathophysiology

- neuropathophysiology of the motor segment (apophyseal joints, disc, foramen, soft tissue, etc.)	2	-	-	-	-	Ch
- pain (mechanisms of peripheral and central pain. Pain of spinal origin. Referred pain)	2	-	-	-	-	Ch

- pain syndromes (radicular and spondylogenic)	2	D	-	-	-	-	Ch
- Pseudo-radicular syndromes (arthrogenous and spondylogenous reflex syndromes)	2	D	T	-	-	-	Ch
- spinal functional lesion and subluxation complex	2	D	T	-	-	-	Ch
- Spondylogenic syndromes and subluxation syndromes	2	D	T	-	-	-	Ch

pharmacology / pharmacotherapy

- analgesics: NSAID, opiates, paracetamol, methadone, aspirin	2	-	-	-	-	-	-
- antacids	1	-	-	-	-	-	-
- antiallergic drugs: non-sedative H1-antagonists	1	-	-	-	-	-	-
- antianaemics: iron sulfate, folic acid, erythropoietin, vitamine B12	1	-	-	-	-	-	-
- antiasthmatics: inhaled beta-2 agonists, - corticosteroids, theophyllin	1	-	-	-	-	-	-
- antibiotics (main drugs)	1	-	-	-	-	-	-
- anticoagulants, fibrinolytics, haemostatics: phytomenadion (vitamine K1)	1	-	-	-	-	-	-
- antidepressants: tricyclic antidepressants etc.	1	-	-	-	-	-	-
- antidiarrhea agents: loperamide	1	-	-	-	-	-	-
- antidotes	1	-	-	-	-	-	-
- antiemetics	1	-	-	-	-	-	-
- antiepileptics	1	-	-	-	-	-	-
- anti-migraine drugs: ergotamine, 5 HT1-receptor agonists ("triptanes")	2	-	-	-	-	-	-
- antimycotics: ketokonazole, amphotericin B	1	-	-	-	-	-	-
- antiparkinson drugs: levodopa-benserazide, bromocriptin, biperiden (akineton)	1	-	-	-	-	-	-
- antitumor agents and their antidotes	1	-	-	-	-	-	-
- antitussives and mucolytics: dextromethrophan, codeine, acetyl-cystein	1	-	-	-	-	-	-
- antiviral agents	1	-	-	-	-	-	-
- cardiovascular drugs: ACE-inhibitors, Ca-antagonists, beta-blockers etc.	1	-	-	-	-	-	-
- disinfectants: chlorhexidin, 70% aethanol, povidone iodine	1	-	-	-	-	-	-
- diuretics: loop-diuretics, thiazide diuretics	1	-	-	-	-	-	-
- drug interactions (NSAID, opiates, paracetamol, aspirin, anti-headache drugs)	2	-	-	-	-	-	-
- drug poisoning and overdose (principles)	2	-	-	-	-	-	-
- drugs against substance abuse	1	-	-	-	-	-	-
- frequent adverse drug reactions (ADRs)	2	-	-	-	-	-	-
- hormones and metabolic drugs	1	-	-	-	-	-	-
- immunological drugs	1	-	-	-	-	-	-
- individualization of drug therapy	1	-	-	-	-	-	-
- infusions	1	-	-	-	-	-	-
- laxatives: lactulose/lactitol/psyllium/senna glycosides/bisacodyl	1	-	-	-	-	-	-
- minerals: potassium salts, magnesium salts, calcium salts	1	-	-	-	-	-	-
- neuroleptics	1	-	-	-	-	-	-
- parasympathomimetics	1	-	-	-	-	-	-
- pharmacokinetics: dosing, monitoring, basic concepts	1	-	-	-	-	-	-
- sedatives and antianxiety drugs	1	-	-	-	-	-	-
- tuberculostatic agents	1	-	-	-	-	-	-

physiology

- acid base balance	1	-	-	-	-	-
- basis of cell physiology	2	-	-	-	-	-
- biological rhythms, sleep and growth	1	-	-	-	-	-
- blood flow in the vertebral arteries during neck movements	2	-	-	-	-	-
- blood function and haematopoiesis	1	-	-	-	-	-
- blood pressure and blood supply control of viscera	1	-	-	-	-	-
- blood volume regulation	1	-	-	-	-	-
- blood-groups; Rhesus factors	1	-	-	-	-	-
- body temperature and its regulation	1	-	-	-	-	-
- cardiac function control	1	-	-	-	-	-
- coagulation	1	-	-	-	-	-
- composition and circulation of the cerebrospinal fluid	2	-	-	-	-	-
- composition and regulation of body fluids	1	-	-	-	-	-
- deep sensation and proprioception	2	-	-	-	-	-
- electrocardiogram	1	-	-	-	-	-
- endocrine glands; function of hormones	2	-	-	-	-	-
- energy conservation; energy transformation; basal metabolism	1	-	-	-	-	-
- epicritic sensation and pain	2	-	-	-	-	-
- excitability, membrane potential at rest, action potential, nerve conduction	2	-	-	-	-	-
- function of integration and superior functions of the nervous system	2	-	-	-	-	-
- function of the gastrointestinal tract	1	-	-	-	-	-
- functions of the autonomic nervous system	2	-	-	-	-	-
- functions of the peripheral nervous system and of the various types of nerve fibers	2	-	-	-	-	-
- functions of the spinal muscles, in particular the anterior, posterior and lateral spinal muscles	2	-	-	-	-	-
- functions of the various types of articulations	2	-	-	-	-	-
- heart mechanics; excitability of the heart muscle	1	-	-	-	-	-
- immune system	1	-	-	-	-	-
- kidney function	1	-	-	-	-	-
- leucocytes formation and functions	1	-	-	-	-	-
- medullary and supraspinal control of motility	2	-	-	-	-	-
- nutrition	1	-	-	-	-	-
- organization of cardiovascular system; physiology of blood circulation	1	-	-	-	-	-
- physiology of bone, in particular phosphocalcic metabolism	2	-	-	-	-	-
- physiology of breathing	1	-	-	-	-	-
- physiology of cartilage, of ligaments and tendons, of periosteum, of the joint capsule, of the synovial membrane and the synovial fluid	2	-	-	-	-	-
- physiology of equilibrium	2	-	-	-	-	-
- physiology of exercise	2	-	-	-	-	-
- physiology of muscle contraction	2	-	-	-	-	-
- physiology of sense organs	2	-	-	-	-	-
- Posture and locomotion	2	-	-	-	-	-
- production and functions of red blood cells, haemoglobin, hematocrit; blood cells count, MCV, MCH, MCHC	1	-	-	-	-	-
- sexual function and reproduction	1	-	-	-	-	-
- the reflexes	2	-	-	-	-	-

- types of muscles and their physiology 2 - - - - -
- types of synapses and their functions; the neurotransmitters 2 - - - - -

General Practice and Outpatient Management (if not covered elsewhere)

Skills

laboratory

- logistics of laboratory work up in outpatient practice 3 - - - - Ch

patient and practice management

- pharmacological symptomatic treatment 2 - - - - Ch
- active and passive physiotherapy 4 - - - - Ch
- assessment of aptitude for service with fire brigade or the military 4 - - - - Ch
- assessment of work capacity 4 - - - - Ch
- caring for and supporting patients with chronic disease 4 - - - - Ch
- conservative management of self-limiting disease ("wait and see") 4 - - - - Ch
- continuous adaptation of patient management based on new informations 4 - - - - Ch
- coping with dysfunctional families 3 - - - - Ch
- house call to patient 3 - - - - Ch
- incidental involvement "on the road" 3 - - - - Ch
- management of polymorbid patient 4 - - - - Ch
- organisation of consultations and office hours 4 - - - - Ch
- phone call from or to patient 4 - - - - Ch
- prescription of physiotherapy 4 - - - - Ch
- symptomatic treatment of pain 4 - - - - Ch
- taking a bio-psycho-social history, adapted to kind and severity of health disturbance 4 - - - - Ch
- use house call to assess psycho-social, oeconomic and sanitary situation 4 - - - - Ch

Further Knowledge

laboratory examination

- affections of other systems (blood, urological and cerebrospinal fluid analyses) 2 - - - - Ch
- analyses that will confirm the diagnosis of an affection justifying chiropractic care 2 D - - - Ch
- analyses to confirm or exclude a contraindication 2 D - - - Ch
- analyses to establish a non-indication that could not be recognized otherwise 2 D - - - Ch
- disturbances of bone metabolism (blood and urological analyses) 2 D - - - Ch
- examinations leading to the establishment of a diagnosis and a differential diagnosis in the framework of affections of the locomotor system. 2 D - - - Ch
- inflammatory and rheumatic affections (blood and synovial fluid 2 - - - - Ch

analyses)

- normal biological findings 2 - - - - Ch
- signification and interpretation of values that differ from normal 2 - - - - Ch

Internal Medicine

Clinical Picture

addiction / poisonings

- amphetamin overdose	1	-	-	-	-	-
- carbon monoxide poisoning	1	-	-	-	-	-
- heroin overdose	1	-	-	-	-	-
- paracetamol overdose	1	-	-	-	-	-
- selfpoisoning by other drugs	1	-	-	-	-	-

disorders of liver, gall bladder and pancreas

- alcoholic hepatitis	1	-	-	-	P	-
- amoebiasis of liver	1	-	-	-	-	-
- Budd-Chiari disease	1	-	-	-	-	-
- carcinoma of bile ducts	1	-	-	-	-	-
- carcinoma of pancreas	1	-	-	-	-	-
- cholecystitis including biliary colic	1	-	-	E	-	-
- cholelithiasis	1	-	-	-	-	-
- chronic hepatitis	1	-	-	-	-	-
- cirrhosis	1	-	-	-	P	-
- cystic fibrosis	1	-	-	-	-	-
- liver failure	1	-	-	-	-	-
- malignancy of gall bladder	1	-	-	-	-	-
- metastases in liver	1	-	-	-	-	-
- pancreatitis	2	-	-	-	-	-
- portal hypertension	1	-	-	-	-	-
- primary liver carcinoma	1	-	-	-	-	-
- viral hepatitis	1	-	-	-	-	-

endocrinological disorders

- acromegaly	2	-	-	-	-	-
- acute complications of diabetes mellitus	1	-	-	-	-	-
- adreno-cortical failure	1	-	-	E	-	-
- adrenogenital syndrome	1	-	-	-	-	-
- chronic complications of diabetes mellitus	1	-	-	-	-	-
- Cushing's disease	2	-	-	-	-	-
- diabetes insipidus	1	-	-	-	-	-
- diabetes mellitus type 1	1	-	-	-	-	-
- diabetes mellitus type 2	1	-	-	-	-	-
- hyperlipoproteinemia and dyslipoproteinemia	2	-	-	-	P	-
- hyperparathyroidism	2	-	-	-	-	-
- hyperthyroidism	2	-	-	-	-	-
- hypoglycaemia	1	-	-	-	-	-
- hypogonadism	1	-	-	-	-	-

- hypoparathyroidism	2	-	-	-	-	-
- hypopituitarism	1	-	-	-	-	-
- hypothyroidism	2	-	-	-	-	-
- multiple endocrine neoplasia (MEN-syndromes)	1	-	-	-	-	-
- obesity	2	-	-	-	P	Ch
- pheochromocytoma	1	-	-	-	-	-
- pituitary tumours	1	-	-	-	-	-
- primary hyperaldosteronism	1	-	-	-	-	-
- thyroid nodule	1	-	-	-	-	-
- thyroiditis	1	-	-	-	-	-
- tumour with ectopic production of hormones	1	-	-	-	-	-

gastrointestinal disorders

- achalasia	1	-	-	-	-	-
- angiodysplasia of colon	1	-	-	-	-	-
- candidiasis, mouth/throat	1	-	-	-	-	-
- carcinoid tumours	1	-	-	-	-	-
- carcinoma of oesophagus	1	-	-	-	P	-
- carcinoma of stomach	1	-	-	-	-	-
- coeliac disease	1	-	-	-	-	-
- colonic polyps	1	-	-	-	-	-
- Crohn's disease	2	-	-	-	-	Ch
- diverticulosis, diverticulitis	1	-	-	-	-	-
- fissure-in-ano	1	-	-	-	-	-
- gastric bleeding	2	-	-	E	-	-
- gastritis	1	-	-	-	-	-
- haemorrhoids	1	-	-	-	-	-
- herpetic stomatitis	1	-	-	-	-	-
- hiatus hernia	1	-	-	-	-	-
- infectious colitis	1	-	-	-	-	-
- irritable bowel syndrome, chronic abdominal pain	1	-	-	-	-	-
- ischaemic colitis	1	-	-	-	-	-
- malabsorption	1	-	-	-	-	-
- malignancy of colon	1	-	-	-	-	-
- Mallory-Weiss syndrome	1	-	-	-	-	-
- mechanical ileus	1	-	-	E	-	-
- megacolon, toxic	1	-	-	-	-	-
- oesophageal varices	1	-	-	-	-	-
- paralytic ileus	1	-	-	E	-	-
- peptic ulcer, incl. helicobacter infection	1	-	-	-	-	-
- perforation of stomach	1	-	-	E	-	-
- polyposis coli	1	-	-	-	-	-
- proctitis	1	-	-	-	-	-
- pseudomembranous colitis	1	-	-	-	-	-
- pyloric stenosis	1	-	-	-	-	-
- rectal prolapse	1	-	-	-	-	-
- recurrent aphthous ulcers of buccal mucosa	1	-	-	-	-	-
- reflux oesophagitis including Barrett's oesophagus	2	-	-	-	-	Ch

- spasm of oesophagus	1	-	-	-	-	-
- typhoid fever	1	-	-	-	-	-
- ulcerative colitis	2	-	-	-	-	Ch
- Zollinger-Ellison syndrome	1	-	-	-	-	-

geriatrics (items not covered elsewhere)

- advance directives	1	-	-	-	-	-
- concept and consequences of multimorbidity in old age	1	-	-	-	-	-
- concept of impairment, disability, and handicap in old age	2	-	-	-	-	-
- elder abuse and neglect	2	-	-	-	-	-
- euthanasia	1	-	-	-	-	-
- nonspecific or atypical presentation of disease in old age	1	-	-	-	-	-
- pharmacological issues in ageing	1	-	-	-	-	-
- principles of long-term institutional and home care	1	-	-	-	-	-
- role of rehabilitation in the disabled elderly	2	-	T	-	-	Ch

haematological disorders

- acute leukaemia	1	-	-	-	-	Ch
- agranulocytosis	1	-	-	-	-	-
- anaemia associated with chronic diseases	1	-	-	-	-	Ch
- aplastic/ hypoplastic anaemia	1	-	-	-	-	-
- chronic lymphocytic leukaemia	1	-	-	-	-	Ch
- chronic myeloid leukaemia	1	-	-	-	-	Ch
- disseminated intravascular coagulation	1	-	-	-	-	-
- haemoglobinopathy	1	-	-	-	-	-
- haemolytic anaemia	1	-	-	-	-	-
- haemophilia A+B	1	-	-	-	-	Ch
- Hodgkin's lymphoma	1	-	-	-	-	Ch
- iron-deficiency anaemia	1	-	-	-	-	-
- macrocytic anaemia	1	-	-	-	-	-
- myeloma	1	-	-	-	-	Ch
- non-Hodgkin's lymphoma	1	-	-	-	-	Ch
- polycythemia	1	-	-	-	-	-
- thrombocytopenia	1	-	-	-	-	-
- thrombocytosis	1	-	-	-	-	-
- Von Willebrand's disease	1	-	-	-	-	-
- Waldenström's macroglobulinaemia	1	-	-	-	-	-

immunological / allergic reactions

- anaphylactic reaction	2	D	-	E	-	-
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infectious diseases, not mentioned elsewhere

- acute infectious diarrheal diseases including traveler's diarrhea (pathogenic e.coli) and food poisoning	1	-	-	-	-	-
- AIDS	2	-	-	-	-	-
- amoebiasis	1	-	-	-	-	-

- cat scratch disease	1	-	-	-	-	-
- cholera	1	-	-	-	-	-
- cytomegalovirus	1	-	-	-	-	-
- erysipelas	1	-	-	-	-	-
- giardiasis	1	-	-	-	-	-
- herpes simplex	1	-	-	-	-	-
- herpes zoster	2	D	-	-	-	Ch
- infectious mononucleosis	1	-	-	-	-	-
- influenza	1	-	-	-	-	-
- Lyme disease	2	D	-	-	-	-
- lymphangitis	1	-	-	-	-	-
- malaria	1	-	-	-	-	-
- meningitis	2	-	-	E	-	Ch
- parasites of bowel	1	-	-	-	-	-
- prion diseases	1	-	-	-	-	-
- reportable infectious diseases	1	-	-	-	-	-
- rickettsial diseases	1	-	-	-	-	-
- schistosomiasis	1	-	-	-	-	-
- tetanus	2	-	-	-	P	Ch
- toxocariasis	1	-	-	-	-	-
- toxoplasmosis	1	-	-	-	-	-
- tuberculosis	2	D	-	-	P	Ch
- Weil's disease (leptospirosis)	1	-	-	-	-	-

neurological disorders (items not covered elsewhere)

- absence seizures	2	-	-	-	-	-
- alcohol intoxication	2	-	-	E	-	-
- Alzheimer's disease	2	-	-	-	-	-
- brain death	1	-	-	-	-	-
- carbon monoxide poisoning	1	-	-	-	-	-
- cerebral palsy	2	-	-	-	-	-
- complete spinal transection	2	D	-	E	-	-
- Creutzfeldt-Jakob's disease	1	-	-	-	-	-
- dementia	2	-	-	-	-	-
- disorders of cranial nerves not mentioned elsewhere	2	-	-	-	-	-
- encephalitis and brain abscess	2	-	-	-	-	-
- encephalopathies (metabolic, endocrine, autoimmune, mitochondrial)	1	-	-	-	-	-
- extradural haemorrhage	2	-	-	E	-	-
- focal epilepsy	2	-	-	-	-	-
- fronto-temporal atrophies	1	-	-	-	-	-
- generalized seizures	2	D	-	E	-	-
- glioma	2	-	-	-	-	-
- Guillain-Barré syndrome and related disorders	2	-	-	-	-	-
- Herpes simplex-encephalitis	2	-	-	-	-	-
- HIV - neurological complications	2	-	-	-	-	-
- Huntington's disease	1	-	-	-	-	-
- injury of plexus and peripheral nerves	2	-	-	-	-	-
- lead poisoning	1	-	-	-	-	-

- Menière's disease	2	D	-	E	-	Ch
- meningioma	2	-	-	-	-	-
- mental retardation	1	-	-	-	-	-
- multi-infarct dementia	1	-	-	-	-	-
- myasthenia gravis	2	-	-	-	-	-
- narcolepsy	1	-	-	-	-	-
- neural tube defects	2	-	-	-	-	-
- non-rhythmic dyskinesias	1	-	-	-	-	-
- Parkinsonian syndromes	2	-	-	-	-	-
- peripheral neuropathies not otherwise classified	2	-	-	-	-	-
- poisoning by medication and illicit drugs	1	-	-	-	-	-
- polymyositis	2	-	-	-	-	-
- sleep apnoea syndrome	1	-	-	-	-	-
- status epilepticus	2	-	-	E	-	-
- stupor and coma	2	-	-	E	-	-
- subacute combined degeneration	1	-	-	-	-	-
- subdural haemorrhage	2	-	-	E	-	-
- syphilis	2	-	-	-	-	-
- syringomyelia	2	-	-	-	-	-
- traumatic brain injury	1	-	-	E	-	-
- Tremor, essential and symptomatic	1	-	-	-	-	Ch
- vascular encephalopathy	1	-	-	-	-	-
- Wernicke-Korsakoff's encephalopathy	1	-	-	-	-	-

renal disorders

- acute glomerulonephritis	1	-	-	-	-	-
- acute renal failure	1	D	-	E	-	-
- carcinoma of bladder	1	-	-	-	-	-
- chronic glomerulonephritis	1	-	-	-	-	-
- chronic renal failure	2	-	-	-	-	-
- Goodpasture's syndrome	1	-	-	-	-	-
- interstitial nephritis	1	-	-	-	-	-
- nephrotic syndrome	1	-	-	-	-	-
- polycystic kidneys	1	-	-	-	-	-
- renal colic	2	-	-	E	-	Ch
- urinary tract infection, cystitis, urethritis	2	-	-	-	-	-
- urolithiasis	2	-	-	E	-	Ch

respiratory disorders

- acute asthma	2	-	-	E	-	Ch
- acute bronchitis	1	-	-	-	-	-
- adult respiratory distress syndrome (ARDS)	1	-	-	-	-	-
- allergic pulmonary disease	1	-	-	-	-	-
- atelectasis	1	-	-	-	-	-
- bronchial asthma	2	D	-	-	-	Ch
- bronchiectasis	1	-	-	-	-	-
- chronic bronchitis	1	-	-	-	-	-

- empyema	1	-	-	-	-	-
- hyperventilation syndrome	2	-	-	E	-	Ch
- interstitial lung disease	1	-	-	-	-	-
- lung abscess	1	-	-	-	-	-
- lung carcinoma, pancoast tumor	2	-	-	-	P	Ch
- lung emphysema	2	-	-	-	-	-
- lung fibrosis	1	-	-	-	-	-
- lung infarction	1	-	-	-	-	-
- mediastinitis	1	-	-	-	-	-
- mesothelioma	1	-	-	-	-	-
- metastases in lung	2	-	-	-	-	-
- other infectious pneumonias	1	-	-	-	-	-
- pleurisy	2	-	-	-	-	Ch
- pneumonia caused by opportunistic infection including pneumocystis carinii	1	-	-	-	-	-
- pneumonia due to other causes	1	-	-	-	-	-
- pneumonia due to streptococcus pneumoniae	1	-	-	-	-	-
- pneumothorax, spontaneous	2	D	-	E	-	Ch
- pulmonary embolism	2	-	-	-	P	Ch
- respiratory insufficiency	1	-	-	-	-	-
- tension pneumothorax	2	-	-	E	-	-
- tracheitis	1	-	-	-	-	-

vascular diseases

- abdominal aortic aneurism	2	-	-	E	-	Ch
- angina pectoris	2	-	-	E	-	-
- aortic dissection	2	-	-	E	-	Ch
- aortic regurgitation	1	-	-	-	-	-
- aortic stenosis	1	-	-	-	-	-
- atherosclerosis (disseminated)	2	-	-	-	-	-
- atrial fibrillation	1	-	-	-	-	-
- atrial flutter	1	-	-	-	-	-
- atrial septal defect	1	-	-	-	-	-
- bundle branch block	1	-	-	-	-	-
- cardiac aneurysm	1	-	-	-	-	-
- cardiogenic shock	1	-	-	-	-	-
- cardiomyopathy	1	-	-	-	-	-
- cardio-respiratory arrest	1	-	-	-	-	-
- claudication	2	D	-	-	-	Ch
- coarctation of the aorta	1	-	-	-	-	-
- complete atrio-ventricular heart block	1	-	-	-	-	-
- deep vein thrombosis	2	-	-	E	P	Ch
- embolism (arterial)	2	-	-	E	-	-
- endocarditis	1	-	-	-	-	-
- heart failure, left and right ventricular failure	1	-	-	-	-	-
- hypertension	2	-	-	-	-	Ch
- hypovolaemic shock	1	-	-	-	-	-
- mitral regurgitation	1	-	-	-	-	-

- mitral stenosis	1	-	-	-	-	-
- myocardial infarction	2	-	-	-	-	-
- myocarditis	1	-	-	-	-	-
- other arrhythmias	1	-	-	-	-	-
- other valvular heart disease	1	-	-	-	-	-
- pericarditis	1	-	-	-	-	-
- pulmonary hypertension	1	-	-	-	-	-
- Raynaud's disease (and Raynaud's phenomenon)	2	-	-	-	-	Ch
- secondary hypertension	1	-	-	-	-	-
- septic shock	1	-	-	-	-	-
- shock	2	-	-	E	-	-
- sinus tachycardia	1	-	-	-	-	-
- supraventricular premature beat	1	-	-	-	-	-
- supraventricular tachycardia	1	-	-	-	-	-
- thrombophlebitis	2	-	-	-	-	Ch
- thrombosis, arterial	2	-	-	E	-	Ch
- tricuspid regurgitation	1	-	-	-	-	-
- unstable angina	2	-	-	-	-	Ch
- ventricular fibrillation	1	-	-	-	-	-
- ventricular premature beat	1	-	-	-	-	-
- ventricular septal defect	1	-	-	-	-	-
- ventricular tachycardia	1	-	-	-	-	-

vitamin deficiency / intoxication

- other vitamines deficiencies/intoxications	1	-	-	-	-	-
- porphyrias	1	-	-	-	-	-
- thiamine deficiency	1	-	-	-	-	-
- vitamines B12 deficiencies	2	-	-	-	-	Ch

Skills

abdomen

- auscultation (bowel sounds, bruits)	3	-	-	-	-	-
- eliciting a fluid thrill	3	-	-	-	-	-
- eliciting abdominal tenderness and rebound tenderness	3	-	-	-	-	-
- eliciting renal tenderness	3	-	-	-	-	-
- eliciting shifting dullness	3	-	-	-	-	-
- inspection	3	-	-	-	-	-
- palpation (abdominal wall, colon, liver, spleen, aorta, rigidity)	3	-	-	-	-	-
- percussion (especially liver, Traube's area, bladder dullness)	3	-	-	-	-	-

chest

- auscultation of heart	3	-	-	-	-	-
- auscultation of lungs	3	-	-	-	-	-
- inspection at rest	3	-	-	-	-	-
- inspection during respiration	3	-	-	-	-	-

- inspection of breasts 3 - - - - -
- palpation of breasts 3 - - - - -
- palpation of respiratory expansion 3 - - - - -
- palpation of tactile fremitus 3 - - - - -
- percussion of lungs, lung bases 3 - - - - -

extremities

- assessment of capillary pulse 3 - - - - -
- assessment of capillary refill 3 - - - - -
- detection of arterial bruits 3 - - - - -
- inspection of skin, nails, muscle tone 4 - - - - -
- palpation of arterial pulses 4 - - - - -
- Trousseau's sign 2 - - - - -

general assessment and vital signs

- blood pressure 4 - - - - -
- general appearance 4 - - - - -
- height and weight 4 - - - - -
- inspection and palpation of skin 4 - - - - -
- inspection of mucous membranes 3 - - - - -
- jugular venous pressure 4 - - - - -
- nutritional condition 4 - - - - -
- palpation of lymph nodes 4 - - - - -
- pulse 4 - - - - -
- respiration 4 - - - - -

geriatrics (skills not covered elsewhere)

- assessment of physical function including standardised assessment of basic activities of daily living, instrumental activities 3 - - - - -
- environmental assessment (assessment of home environment including risk factors for fall) 3 - - - - -
- evaluation of decision-making capacity in cognitively impaired person 3 - - - - -

head / neck

- assessment of fontanelles 3 - - - - -
- Chvostek's sign 2 - - - - -
- detection of neck stiffness 4 - - - - -
- inspection of eyes, nose, mouth and throat 4 - - - - -
- palpation of salivary glands 3 - - - - -
- palpation of thyroid gland 4 - - - - -
- palpation of trachea 4 - - - - -
- throat swab 2 - - - - -

internal medicine investigations

- arterial puncture 1 - - - - -
- assessment of gram stain 1 - - - - -

- bronchoscopy	1	-	-	-	-	-
- cardiac catheterisation	1	-	-	-	-	-
- Doppler examination	1	-	-	-	-	-
- echocardiography	1	-	-	-	-	-
- echography	1	-	-	-	-	-
- electrocardiography	1	-	-	-	-	-
- exercise ECG testing	1	-	-	-	-	-
- finger prick	2	-	-	-	-	-
- gastric endoscopy	1	-	-	-	-	-
- Holter examination	1	-	-	-	-	-
- joint fluid aspiration	1	-	-	-	-	-
- kidney or liver biopsy	1	-	-	-	-	-
- lung function tests / spirometry	1	-	-	-	-	-
- methods of pathogen identification by serology (direct, morphologically, by immuno-staining, immuno-response)	1	-	-	-	-	-
- pleural tap	1	-	-	-	-	-
- preparation and examination of blood film	1	-	-	-	-	-
- preparation and examination of urinary sediment	1	-	-	-	-	-
- proctoscopy	1	-	-	-	-	-
- synovial analysis (cell count, crystals, gram)	1	-	-	-	-	-
- taking a mid-stream urine sample	2	-	-	-	-	-
- tapping ascites	1	-	-	-	-	-
- venepuncture	2	-	-	-	-	-

male genitalia

- inspection and palpation of scrotum	2	-	-	-	-	-
- inspection of penis	2	-	-	-	-	-

perineum

- inspection of perianal area	2	-	-	-	-	-
- rectal examination	2	-	-	-	-	-

therapeutic measures

- advice about life-style	4	-	-	-	-	-
- basic cardiac life support (with simulator)	4	-	-	-	-	-
- prescription of a diet	2	-	-	-	-	-
- prescription of occupational therapy	2	-	-	-	-	-

Further Knowledge

items not covered elsewhere

- demography and epidemiology of ageing (on global, national, and regional level)	1	-	-	-	-	-
- ICDH = international classification of impairment, disability and handicap	1	-	-	-	-	-
- normal late-life changes, including retirement	1	-	-	-	-	-

Surgery

Clinical Picture

abdominal wall and hernias

- abdominal apron	1	-	-	-	-	-	-
- diastasis of rectus abdominis muscle	1	-	-	-	-	-	-
- epigastric hernia	1	-	-	-	-	-	-
- femoral hernia	1	-	-	-	-	-	-
- hernia of linea alba	1	-	-	-	-	-	-
- incarcerated hernias	1	-	-	-	-	-	-
- incisional hernia	1	-	-	-	-	-	-
- inguinal hernia	1	-	-	-	-	-	Ch
- umbilical hernia	1	-	-	-	-	-	-

acute abdomen

- acute abdomen	2	-	-	E	-	-	-
- acute appendicitis	2	-	-	E	-	-	-
- adhaesions	1	-	-	-	-	-	-
- diverticulitis	2	-	-	-	-	-	-
- Douglas` abscess	1	-	-	-	-	-	-
- ileus (proximal, distal)	2	-	-	E	-	-	-
- invagination	1	-	-	-	-	-	-
- mesenteric infarction	1	-	-	-	-	-	-
- mesenteric lymphadenitis	1	-	-	-	-	-	-
- perforation	2	-	-	E	-	-	-
- peritonitis	2	-	-	E	-	-	-
- salpingitis	1	-	-	-	-	-	-
- subphrenic abscess	1	-	-	-	-	-	-
- volvulus of small intestine, congenital malrotation	1	-	-	-	-	-	-

arteries

- acute arterial occlusion	2	-	-	E	-	-	-
- aneurysm of abdominal aorta	2	-	-	-	-	-	Ch
- aneurysm of thoracic aorta	2	-	-	-	-	-	Ch
- B�rger's disease	1	-	-	-	-	-	-
- cerebrovascular ischemia (in particular extracranial obstruction)	2	-	-	-	-	-	-
- haemangioma	1	-	-	-	-	-	-
- occlusion/stenosis in aorto-iliacal region	2	-	-	-	-	-	Ch
- occlusion/stenosis in femoro-popliteal region	2	-	-	-	-	-	Ch
- occlusion/stenosis of distal arteries of lower extremities	2	-	-	-	-	-	Ch
- open and closed traumatic vascular lesions	1	-	-	-	-	-	-
- Raynaud phenomenon	2	-	-	-	-	-	Ch
- renal artery stenosis and consequences	1	-	-	-	-	-	-
- rupture of aorta	1	-	-	-	-	-	-
- subclavian steal syndrome	2	D	-	-	-	-	Ch

brain and peripheral nerves (neurosurgery)

- arteriovenous malformations and other angioma 1 - - - - -
- **benign and malignant brain tumors** 2 - - - - Ch
- **elevated intracranial pressure (acute, chronic)** 2 D - E - Ch
- hydrocephalus and malformations 1 - - - - -

breast

- asymmetries and anomalies of breast 1 - - - - -
- benign cysts and tumors 1 - - - - -
- gynaecomastia 1 - - - - -
- malignant tumors 1 - - - - -
- mastitis 1 - - - - -
- mastopathy 1 - - - - -

chest

- **fractures and contusions of ribs** 2 D - E - Ch
- funnel chest, chicken breast 1 - - - - -
- haemothorax 1 - - - - -
- **injuries from fractured ribs, flail chest** 2 D - E - Ch
- **pneumothorax** 2 - - - - Ch
- sternum fractures 1 - - - - -

colon

- colonic carcinoma 1 - - - - -
- Crohn`s disease 1 - - - - -
- diverticulosis/diverticulitis 1 - - - - -
- Hirschsprung`s disease 1 - - - - -
- necrotising enterocolitis 1 - - - - -
- perforating abdominal trauma 1 - - - - -
- polyps (adenomas, familial polyposis) 1 - - - - -
- pseudomembraneous colitis 1 - - - - -
- ulcerative colitis 1 - - - - -

diaphragm

- hernia of diaphragm 1 - - - - -
- hiatal hernia 1 - - - - -
- rupture of diaphragm 1 - - - - -

endocrinology (if not mentioned elsewhere)

- Cushing's syndrome 1 - - - - -
- endocrine pancreatic tumors 1 - - - - -
- pheochromocytoma 1 - - - - -
- pituitary tumor 1 - - - - -
- primary hyperaldosteronism (Conn's syndrome) 1 - - - - -

gallbladder/gall ducts

- acute cholecystitis	1	-	-	-	-	Ch
- atresia of bile ducts	1	-	-	-	-	-
- bile fistula (internal, external)	1	-	-	-	-	-
- carcinoma of gallbladder/bile ducts	1	-	-	-	-	-
- chole(docho)lithiasis	1	-	-	-	-	Ch
- gallbladder empyema	1	-	-	-	-	-
- gallstone ileus	1	-	-	-	-	-
- hydrops of gallbladder	1	-	-	-	-	-
- injury to bile ducts	1	-	-	-	-	-
- strictures of bile ducts	1	-	-	-	-	-

heart

- acute aortic dissection	1	-	-	-	-	-
- cardiac contusion	1	-	-	-	-	-
- cardiac tamponade	1	-	-	-	-	-
- valvular heart disease	1	-	-	-	-	-

inflammation and infection

- animal bites	1	-	-	-	-	-
- fasciitis	1	-	-	-	-	-
- gangrene	1	-	-	-	-	-
- gas gangrene	1	-	-	-	-	-
- surgical infections	1	-	-	-	-	-
- tetanus	1	-	-	-	-	-

jejunum, ileum

- benign and malignant tumors	1	-	-	-	-	-
- carcinoid syndrome	1	-	-	-	-	-
- intestinal atresia	1	-	-	-	-	-
- malrotation	1	-	-	-	-	-
- Meckels Diverticulum	1	-	-	-	-	-

kidneys, urinary tract and prostate

- benign prostatic hyperplasia	1	-	-	-	-	Ch
- carcinoma of the prostate	1	-	-	-	-	Ch
- congenital malformations of kidneys, ureter and urethra	1	-	-	-	-	-
- cystitis	1	-	-	-	-	Ch
- lesions of kidney and distal urinary tract (traumatic)	1	-	-	-	-	-
- prostatitis	1	-	-	-	-	Ch
- pyelonephritis, acute, chronic, pyelonephrosis	1	-	-	-	-	-
- renal cell carcinoma	1	-	-	-	-	-
- urethritis	1	-	-	-	-	Ch
- urinary incontinence	1	-	-	-	-	Ch

- urinary retention 1 - - E - Ch
- urolithiasis/renal colic 1 - - E - Ch
- urothelial tumors 1 - - - - -
- vesicoureteric reflux 1 - - - - -
- Wilms tumor 1 - - - - -

liver

- amoebic liver abscess 1 - - - - -
- **cirrhosis of the liver** 1 - - - P -
- echinococcus cyst 1 - - - - -
- liver injury 1 - - - - -
- portal hypertension 1 - - - - -
- primary liver tumor 1 - - - - -
- **secondary liver tumor (metastases)** 1 - - - - Ch

localized disturbances of muscle and bone

- acute osteomyelitis 1 - - - - -
- aseptic necrosis of bone 1 - - - - -
- bone metastases 1 - - - - -
- epiphyseal instability, epiphysiolysis 1 - - - - -
- **ganglion** 1 - - - - Ch
- lesion of articular cartilage 1 - - - - -
- lesion of joint capsule 1 - - - - -
- **pathological fracture** 1 - - - - Ch
- primary bone tumors 1 - - - - -

lung

- aspiration pneumonia 1 - - - - -
- lung contusion 1 - - - - -
- **lung tumors** 1 - - - P Ch
- mediastinal tumors 1 - - - - -
- respiratory distress syndrome 1 - - - - -

lymphatic vessels

- acute lymphangitis and lymphadenitis 1 - - - - -
- chronic lymphadenitis 1 - - - - -
- lymphangioma 1 - - - - -
- primary and secondary lymphoedema 1 - - - - -

male genitals

- erectile dysfunction 1 - - - - -
- phimosis, paraphimosis 1 - - E - -
- testicular cancer 1 - - - - -
- torsion of testicle 1 - - E - -
- undescended testicle (cryptorchidism) 1 - - - - -

neck, shouder girdle and upper extremities

- bursitis of olecranon	1	-	-	E	-	-
- Carpaltunnel-Syndrome	1	-	-	-	-	-
- Dupuytren's contracture	1	-	-	-	-	-
- fracture of clavicle	1	-	-	E	-	-
- fracture of humerus	1	-	-	E	-	-
- fractures and lesions of capsule, tendons and ligaments of elbow	1	-	-	-	-	-
- fractures and lesions of capsule, tendons and ligaments of fingers and thumb	1	-	-	E	-	-
- fractures and lesions of capsule, tendons and ligaments of wrist	1	-	-	E	-	-
- fractures of radius and ulna	1	-	-	E	-	-
- fractures of shoulder	1	-	-	E	-	Ch
- Frozen shoulder	1	-	-	-	-	-
- lateral epicondylitis (Tennis elbow)	1	-	-	-	-	-
- lesion of finger tendons, e.g. button hole deformity	1	-	-	-	-	-
- lesions of shoulder ligament	1	-	-	-	-	-
- loss of finger nail	1	-	-	-	-	-
- luxations of shoulder	1	-	-	E	-	Ch
- mallet finger	1	-	-	-	-	-
- panaris	1	-	-	E	-	-
- phlegmon of flexor tendon	1	-	-	-	-	-
- subungual haematoma	1	-	-	-	-	-
- subungual melanoma	1	-	-	-	-	-

oesophagus

- achalasia	1	-	-	-	-	-
- corrosive lesion (acid, base, stenosis)	1	-	-	-	-	-
- diverticulum	1	-	-	-	-	-
- malignant tumors	1	-	-	-	-	-
- oesophageal atresia	1	-	-	-	-	-
- oesophageal rupture	1	-	-	-	-	-
- oesophageal varices	1	-	-	-	-	-

pancreas

- acute pancreatitis	1	-	-	E	-	-
- annular pancreas	1	-	-	-	-	-
- chronic pancreatitis incl. pseudocysts	1	-	-	-	P	-
- pancreatic carcinoma	1	-	-	-	-	-

pelvis and lower extremities

- abnormal patellary cartilage	2	-	-	-	-	-
- arthritis of hip	2	D	-	-	-	-
- claw foot	1	-	-	-	-	-
- club foot	1	-	-	-	-	-
- congenital dysplasia of hip, congenital dislocation of hip	2	-	-	-	-	-

- dislocation of patella	2	D	-	E	-	-	-
- fractures of femur	2	D	-	E	-	-	-
- fractures of fibula	2	D	-	E	-	-	-
- fractures of hip	2	-	-	-	-	-	-
- fractures of pelvis	1	-	-	-	-	-	-
- fractures of tibia	2	D	-	E	-	-	-
- fractures of toes	2	D	-	-	-	-	-
- fractures, lesions of capsule, tendons and ligaments of ankle	2	-	-	E	-	-	-
- fractures, lesions of capsule, tendons and ligaments of knee	2	D	-	E	-	-	-
- genu varum, genu valgum	2	D	-	-	-	-	-
- gonarthritis	2	-	-	-	-	-	-
- Hallux valgus	2	D	-	-	-	-	-
- hammer toe	2	D	-	-	-	-	-
- inflammation of Achilles tendon	2	D	T	-	-	-	-
- ingrown toenail	2	D	-	-	-	-	-
- instability of ankle	2	D	-	-	-	-	-
- lesions of medial and lateral meniscus	2	D	-	-	-	-	-
- marching fracture	1	-	-	-	-	-	-
- necrosis of femoral head	1	-	-	-	-	-	-
- Osgood-Schlatter disease	1	-	-	-	-	-	-
- osteochondritis dissecans	1	-	-	-	-	-	-
- Perthes' disease	1	-	-	-	-	-	-
- pes planus	2	D	-	-	-	-	-
- prepatellar bursitis	2	D	T	-	-	-	-
- rupture of Achilles tendon	2	D	-	-	-	-	-
- tarsal tunnel syndrome	1	-	-	-	-	-	-

rectum and anus

- (peri)anal abscess	1	-	-	-	-	-	-
- anal atresia	1	-	-	-	-	-	-
- anal fissure	1	-	-	-	-	-	-
- condylomata	1	-	-	-	-	-	-
- fistulas	1	-	-	-	-	-	-
- haemorrhoids	1	-	-	-	-	-	-
- proctitis	1	-	-	-	-	-	-
- rectal and anal prolaps	1	-	-	E	-	-	-
- rectal cancer	1	-	-	-	-	-	-

skin and soft tissues

- arterial and venous ulcers	1	-	-	-	-	-	-
- burns	1	-	-	-	-	-	-
- carbuncle	1	-	-	-	-	-	-
- compartment syndrome	1	-	-	-	-	-	-
- crush syndrome	1	-	-	-	-	-	-
- decubital ulcer	1	-	-	-	P	-	-
- diabetic foot ulcer	1	-	-	-	-	-	-
- furuncle	1	-	-	-	-	-	-

- haematoma	1	-	-	-	-	-
- inflammation of tendon sheath	1	-	-	-	-	-
- keloid	1	-	-	-	-	-
- paronychia	1	-	-	-	-	-
- pilonidal sinus	1	-	-	-	-	-
- radiation ulcer	1	-	-	-	-	-
- soft tissue sarcoma	1	-	-	-	-	-
- trauma to soft tissue	1	-	-	-	-	-

skull, face, mouth, jaw

- broken and fractured tooth	1	-	-	-	-	-
- candidiasis	1	-	-	-	-	-
- cleft lip, jaw, palate	1	-	-	-	-	-
- dental caries	1	-	-	-	-	-
- disturbances of consciousness, Glasgow-Coma Scale	1	-	-	-	-	-
- disturbances with wisdom teeth	1	-	-	-	-	-
- face injury	1	-	-	-	-	-
- facial palsies	1	-	-	-	-	-
- fracture of jaw	1	-	-	-	-	-
- fractures of middle third, not interfering with occlusion (fracture of mid-face, fracture of zygomatic bone, isolated fracture of orbit)	1	-	-	-	-	-
- gingivitis, periodontitis	1	-	-	-	-	-
- glossitis	1	-	-	-	-	-
- jaw and face emergencies, vital risks, obstruction of upper airways, haemorrhages	1	-	-	-	-	-
- Le Fort fracture I,II,III	1	-	-	-	-	-
- leukoplakia	1	-	-	-	-	-
- luxation of jaw	1	-	-	-	-	-
- micro- and macrognathia	1	-	-	-	-	-
- odontogenic abscess	1	-	-	-	-	-
- odontogenic fistula to skin	1	-	-	-	-	-
- odontogenic maxillary sinusitis	1	-	-	-	-	-
- oropharyngeal tumors	1	-	-	-	-	-
- postcontusional syndromes	1	-	-	-	-	-
- short lip frenulum	1	-	-	-	-	-
- sialolithiasis	1	-	-	-	-	-
- trauma to brain and face	1	-	-	E	-	-
- trismus,restrictions in opening of mouth	1	-	-	-	-	-

spine

- fractures and dislocations of the spine	2	-	-	E	-	-
- intervertebral disc hernia	2	-	-	E	-	-
- Scheuermann's disease (juvenile kyphosis)	2	-	-	-	-	-
- scoliosis, kyphosis, lordosis	2	D	-	-	-	-
- spina bifida	1	-	-	-	-	-
- spinal canal stenosis	1	-	-	-	-	-
- spinal tumors	1	-	-	-	-	-
- spondylarthrosis, spondylosis	2	-	-	-	-	-

- spondylitis, spondylodiscitis	2	-	-	-	-	-
- spondylolisthesis	1	-	-	-	-	-
- spondylolysis	1	-	-	-	-	-
- teratoma of sacral region	1	-	-	-	-	-
- transverse lesion of spinal cord	2	-	-	E	-	-
- Whiplash injury	2	-	-	E	-	-

spleen

- rupture, subscapsular haemorrhage	1	-	-	-	-	-
- splenomegaly and "haematologic" spleen	1	-	-	-	-	-

stomach and duodenum

- (perforated) gastric/duodenal ulcer	2	-	-	E	-	-
- duodenal atresia	1	-	-	-	-	-
- foreign body	2	-	-	-	-	-
- gastric dilatation	2	D	-	E	-	-
- gastric tumors	2	-	-	-	-	-
- gastrointestinal haemorrhage	2	D	-	E	-	-
- hypertrophy, stenosis of pylorus	2	-	-	-	-	-
- Mallory-Weiss syndrome	1	-	-	-	-	-
- postgastrectomy syndrome (complications)	2	-	-	-	-	-
- Zollinger-Ellison syndrome	1	-	-	-	-	-

thyroid and parathyroids

- benign and malignant thyroid tumors	1	-	-	-	-	-
- cysts	1	-	-	-	-	-
- goitre	1	-	-	-	-	-
- hyperparathyroidism	1	-	-	-	-	-
- hyperthyroidism	2	D	-	-	-	-
- hypoparathyroidism	1	-	-	-	-	-
- multiple endocrin neoplasia syndrome	1	-	-	-	-	-

trachea, bronchi

- aspiration	2	D	-	E	P	-
- foreign body	2	-	-	-	-	-

veins

- caval vein syndromes	2	D	-	E	-	-
- deep vein thrombosis	2	D	T	-	P	-
- varicous veins (primary, secondary)	2	D	-	-	-	-

wound- and fracture healing

- incisional hernia	1	-	-	-	-	-
- polytraumatism	1	-	-	-	-	-
- pseudoarthrosis	1	-	-	-	-	-

- reflex sympathetic (Sudeck's)dystrophy	1	-	-	-	-	-
- wound abscess	1	-	-	-	-	-
- wound characteristics	1	-	-	-	-	-
- wound dressing, types of bandages, indications for dressings	1	-	-	-	-	-

Skills

Overview of common invasive procedures in the treatment of spinal pathologies

- assessment of operability (assessment of important vital functions)	2	-	-	-	-	Ch
- Complications following invasive procedures	1	-	-	-	-	-
- contraindications (risk factors,ethical and legal problems)	2	-	-	-	-	Ch
- Decompression (lamiotomy, laminectomy), fusion	1	-	-	-	-	-
- establishing indication (diagnosis, risks, prognosis)	2	-	-	-	-	Ch
- information of patient	2	-	-	-	-	Ch
- Injections: periradicular, epidural; surgery	1	-	-	-	-	-

Paediatrics

Clinical Picture

accidents, poisonings, emergencies

- acute abdomen	1	-	-	E	-	-
- coma	1	-	-	-	-	-
- epiglottitis	1	-	-	E	-	-
- febrile seizures	1	-	-	E	-	-
- fever	1	-	-	-	-	-
- meningitis	1	-	-	E	-	-
- pain	1	-	-	-	-	-
- sudden infant death syndrome	1	-	-	-	-	-
- testicular torsion	1	-	-	E	-	-

cardiovascular disorders

- hypertension	2	D	-	-	-	-
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growth and pubertal disturbances

- delayed puberty	1	-	-	-	-	-
- dysfunction of menstrual cycle in adolescence	1	-	-	-	-	-
- failure to thrive	1	-	-	-	-	-
- gynaecomastia	1	-	-	-	-	-
- Klinefelter syndrome	1	-	-	-	-	-
- Marfan syndrome	1	-	-	-	-	-
- obesity	2	D	-	-	P	Ch
- precocious puberty	1	-	-	-	-	-
- premature thelarche and pubarche	1	-	-	-	-	-
- short stature	2	-	-	-	-	Ch
- tall stature	2	-	-	-	-	Ch
- Turner syndrome	1	-	-	-	-	-

infectious diseases

- arthritis, septic / reactive	1	-	-	E	-	-
- erythema infectiosum	1	-	-	-	-	-
- exanthema subitum (roseola)	1	-	-	-	-	-
- gastroenteritis, colitis, enterocolitis	1	-	-	-	-	-
- immunizations recommended by Swiss Federal Office of Public Health (BAG)	1	-	-	-	P	-
- measles	1	-	-	-	-	-
- meningococcaemia	1	-	-	-	-	-
- mononucleosis infections	1	-	-	-	-	-
- mumps	1	-	-	-	-	-
- occult bacteraemia	1	-	-	-	-	-
- otitis media, otitis externa, mastoiditis	2	D	-	E	-	Ch

- poliomyelitis	1	-	-	-	-	-
- rubella	1	-	-	-	-	-
- scarlet fever	1	-	-	-	-	-
- upper respiratory tract infections	1	-	-	-	-	-
- urinary tract infections	2	-	-	E	-	-
- varicella, herpes zoster	1	-	-	-	-	-

neonatology

- club foot	1	-	-	-	-	-
- common birth injuries	1	-	-	-	-	-
- congenital dislocation of the hip	1	-	-	-	-	-
- congenital torticollis	1	-	-	-	-	-
- malrotation	1	-	-	-	-	-
- postmaturity	1	-	-	-	-	-
- prematurity	1	-	-	-	-	-
- respiratory distress	1	-	-	E	-	-

neurological disorders

- cerebral palsy	2	-	-	-	-	-
- intracranial tumours	1	-	-	-	-	-
- migraine, headache	2	D	-	-	-	Ch
- neurofibromatosis	1	-	-	-	-	-
- partial and generalised seizures	1	-	-	-	-	-
- spinal muscular atrophy	1	-	-	-	-	-

orthopedic disorders

- achondroplasia	1	-	-	-	-	-
- craniosynostosis	1	-	-	-	-	-
- Ewing sarcoma	2	D	-	-	-	Ch
- Legg-Perthes disease	2	D	-	-	-	Ch
- Osgood-Schlatter disease	2	D	-	-	-	Ch
- osteogenesis imperfecta	1	-	-	-	-	-
- osteosarcoma	2	D	-	-	P	Ch
- rickets	2	D	-	-	P	-
- transient synovitis of hip	2	D	-	-	-	Ch

psychiatry of childhood and adolescence

- antisocial behavior	1	-	-	-	-	-
- attention deficit hyperactivity disorder	1	-	-	-	-	-
- depression	1	-	-	-	-	-
- disorders of mother-child relationship	2	-	-	-	-	-
- dyslexia	1	-	-	-	-	-
- eating disorders	1	-	-	-	-	-
- psychic reaction to chronic disease	1	-	-	-	-	-
- psychoses of the child and adolescent	1	-	-	-	-	-
- psychosomatic disorders (non specific symptoms: abdominal pain,	2	-	-	-	-	-

headache, fatigue)	
- reaction to parental divorce	1 - - - - -
- risk factors associated with suicide	1 - - E - -
- sleep-related problems	1 - - - - -
- tics	1 - - - - -

respiratory disorders

- asthma	2 D - - - Ch
- cystic fibrosis	1 - - - - -

skin diseases

- atopic dermatitis	1 - - - - -
- diaper rash	1 - - - - -
- haemangioma	1 - - - - -
- oral candidiasis	1 - - - - -
- pediculosis	1 - - - - -
- scabies	1 - - - - -
- seborrheic dermatitis	1 - - - - -
- urticaria	1 - - - - -
- urticaria	1 - - - - -

Skills

diagnostic procedures

- drawing a family tree (pedigree)	2 - - - - -
- reading of urine sticks	2 - - - - -
- screening tests of hearing (age adapted)	2 - - - - -
- screening tests of vision (age related)	2 - - - - -

general examination

- developmental screening tests (e.g. Denver)	2 - - - - -
- history taking and physical examination of newborn , infant, child and adolescent	3 - - - - -
- measurement of weight, length and head circumference	3 - - - - -

therapeutic measures

- primary care of the newborn	2 - - - - -
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Further Knowledge

alimentation

- breast-feeding, techniques and frequent problems	2 - - - - -
- fluid and food requirements as a function of age	1 - - - - -

- formula feeding and alimentation in the first year of life 1 - - - - -

general growth and development (including normal variation)

- adolescent/cognitive and social development 1 - - - - -
- APGAR-Score 1 - - - - -
- fetal circulation and adaptation to extrauterine life 1 - - - - -
- haematopoiesis (foetal and adult haemoglobin levels, variations of red cell mass) 1 - - - - -
- immune system, passive transfer of immunity 1 - - - - -
- intellectual development after language development 1 - - - - -
- language development 1 - - - - -
- lung and heart activity, variants of norm 1 - - - - -
- main parameters of growth (weight, length, head circumference) and of maturation 1 - - - - -
- main parameters of intrauterine growth and intrauterine maturation 1 - - - - -
- maturation of liver functions 1 - - - - -
- maturation of lungs and adaptation to extrauterine life 1 - - - - -
- maturation of skeleton 1 - - - - -
- maturation of teeth 1 - - - - -
- physiological jaundice 1 - - - - -
- physiology of lactation 1 - - - - -
- psychomotor development 1 - - - - -
- pubertal development 1 - - - - -
- regulation of body temperature 1 - - - - -
- role of affective bonding as a function of age 1 - - - - -

genetics

- chromosomal abnormalities (21, 13, 18) 1 - - - - -
- prenatal diagnostics (indications, methods) 1 - - - - -
- principles of genetic transmission 1 - - - - -

maturation of systems (including normal variation)

- cardiovascular system (heart rate, blood pressure) 1 - - - - -
- gastro-intestinal system (changes in first year of life) 1 - - - - -
- respiratory system (respiratory rate, type of respiration) 1 - - - - -
- urinary and rectal sphincter function 1 - - - - -

social and preventive pediatrics

- abuse and neglect 2 - - E - -
- common accidents 2 - - E P -
- dental care 1 - - - P -
- mental retardation 1 - - - - -
- physical exercise (in children with chronic diseases) 2 - T - - Ch
- physical, sensory and social handicaps 2 - - - - Ch
- principal causes of death in children and adolescents 1 - - - - -
- school difficulties 1 - - - - -

- screening for scoliosis
- well child care

2 - T - - Ch
1 - - - P -

Gynaecology & Obstetrics

Clinical Picture

postpartum

- blood group incompatibility	1	-	-	-	-	-
- postpartum haemorrhage	1	-	-	-	-	-
- retained placental tissue	1	-	-	-	-	-
- thrombo-embolism	1	-	-	-	-	-
- uterine inversion	1	-	-	-	-	-

pregnancy

- abruptio placentae	1	-	-	-	-	-
- bleeding from marginal vein	1	-	-	-	-	-
- blood group incompatibility	2	-	-	-	-	-
- cervical incompetence	1	-	-	-	-	-
- dead fetus	1	-	-	-	-	-
- division of the pubic symphysis	2	-	-	-	-	-
- dysmaturity	2	-	-	-	-	-
- gestational diabetes mellitus	2	D	-	-	-	-
- hydatidiform mole	2	-	-	-	-	-
- hyperemesis gravidarum	2	D	-	-	-	-
- intra-uterine infection	2	-	-	-	-	-
- iron deficiency anaemia in pregnancy	2	D	T	-	P	Ch
- jaundice late in pregnancy	1	-	-	-	-	-
- megaloblastic anaemia in pregnancy	2	-	-	-	-	-
- multiple pregnancy	2	-	-	-	-	-
- placenta anomaly	1	-	-	-	-	-
- placenta praevia	2	-	-	-	-	-
- placental insufficiency	2	-	-	-	-	-
- polyhydramnion	1	-	-	-	-	-
- pregnancy induced hypertension	2	D	-	-	-	-
- prenatal screening for chromosomal disorders	1	-	-	-	-	-
- prenatal ultrasound screening for malformations, intrauterine growth retardation	1	-	-	-	-	-
- pyelitis in pregnancy	2	-	-	-	-	-
- screening for infectious diseases	1	-	-	-	-	-
- spontaneous abortion	2	-	-	-	-	-
- threatened abortion	2	-	-	-	-	-
- urinary tract infection in pregnancy	2	D	T	-	-	Ch
- vasa praevia	2	-	-	-	-	-

vagina

- condylomata	1	-	-	-	-	-
- congenital malformations	1	-	-	-	-	-
- cyst of Gartner	1	-	-	-	-	-

- cystocoele	1	-	-	-	-	-
- cysto-urethrocoele	1	-	-	-	-	-
- diverticulum of urethra	1	-	-	-	-	-
- enterocoele	1	-	-	-	-	-
- fistula (vesico-vaginal, uretero-vaginal, recto-vaginal and uretero-vaginal)	1	-	-	-	-	-
- rectocoele	1	-	-	-	-	-
- urethrocoele	1	-	-	-	-	-
- vaginal carcinoma	1	-	-	-	-	-
- vaginal vault prolaps	1	-	-	-	-	-
- vaginitis, atrophic	1	-	-	-	-	-
- vaginitis, candidiasis	1	-	-	-	-	-
- vaginitis, gardnerella	1	-	-	-	-	-
- vaginitis, non-specific bacterial	1	-	-	-	-	-
- vaginitis, trichomoniasis	1	-	-	-	-	-

Skills

postpartum

- measure /estimate loss of blood, after delivery	1	-	-	-	-	-
- physical examination of newborn	2	-	-	-	-	-
- postpartum: examination fundal height, placenta: loose/ retained	1	-	-	-	-	-
- record Apgar score	1	-	-	-	-	-

pregnancy

- amniocentesis	1	-	-	-	-	-
- assessment of foetal heart rate	1	-	-	-	-	-
- chorionic biopsy	1	-	-	-	-	-
- inspection of abdomen of pregnant woman	1	-	-	-	-	-
- internal examination in early pregnancy	1	-	-	-	-	-
- pelvic examination	1	-	-	-	-	-
- pregnancy test, urine	1	-	-	-	-	-
- ultrasound examination	1	-	-	-	-	-

puerperium

- advice on hygiene	2	-	-	-	-	-
- assist and check mother and newborn	2	-	-	-	-	-

Psychiatry

Clinical Picture

development

- attention deficit and hyperactivity disorder	2	-	-	-	-	Ch
- autism	1	-	-	-	-	-
- elimination disorders	1	-	-	-	-	-
- mental retardation and learning disorders	1	-	-	-	-	-
- speech and language disorders	1	-	-	-	-	-
- tic disorders	2	-	-	-	-	Ch

disorders with physiological disturbances

- eating disorders	1	-	-	-	-	-
- sexual dysfunctions	1	-	-	-	P	-
- sleep disorders	1	-	-	-	P	-

mood

- bipolar disorders	1	-	-	E	-	-
- depressive disorders	2	-	-	E	-	-
- dysthymia	1	-	-	-	-	-

neurosis

- dissociative (conversion) disorder	1	-	-	-	-	-
- generalized anxiety disorder	2	-	-	-	-	-
- obsessive-compulsive disorder	1	-	-	-	-	-
- panic disorder and agoraphobia	2	D	-	E	-	-
- somatoform disorders	1	-	-	-	-	-
- specific phobias and social phobia	1	-	-	-	-	-
- stress and adjustment disorders	1	-	-	-	-	-

organic mental disorders

- alcohol-related disorders	2	-	-	-	P	-
- delirium	2	-	-	E	-	-
- dementia	2	-	-	-	-	-
- nicotine-related disorders	2	-	-	-	P	-

personality

- antisocial personality disorders	2	-	-	-	-	-
- avoidant and dependent personality disorders	2	-	-	-	-	-
- borderline personality disorder	2	-	-	-	-	-
- disorders of sexual preference	1	-	-	-	-	-
- gender identity disorders	1	-	-	-	-	-

- paranoid, schizoid and schizotypal personality disorder 2 - - - - -

schizophrenia and related disorders

- brief psychotic disorders 2 - - - - -
- delusional disorder (paranoia) 1 - - - - -
- schizo-affective disorders 1 - - - - -
- schizophrenia 2 - - - - -

Skills

diagnostic instruments

- ICD-10 1 - - - - -
- Mini Mental Status 2 - - - - -

procedures

- referral to social services 2 - - - - -
- referral to specialized psychiatric care 2 - - - - -

psychiatric examination

- affect 2 - - - - -
- attention and intelligence 2 - - - - -
- identifying psychological and social problems 1 - - - - -
- orientation, consciousness and memory 2 - - - - -
- perception 2 - - - - -
- psychomotor behavior 2 - - - - -
- suicidal risk assessment 1 - - - - -
- thought (form and content) 2 - - - - -

psychotherapy

- cognitive-behavioral psychotherapy 1 - - - - -
- psychodynamic psychotherapy 1 - - - - -
- relaxation techniques 2 - - - - -
- systemic therapy 1 - - - - -

Ophthalmology

Clinical Picture

glaucoma

- acute glaucoma	2	D	-	E	-	-
- glaucoma, congenital	1	-	-	-	-	-
- secondary glaucoma	1	-	-	-	-	-
- simple glaucoma	1	-	-	-	-	-

optic disc and optic nerve

- optic atrophy	1	-	-	-	-	-
- optic disc cupping	1	-	-	-	-	-
- optic neuropathy, e.g. optic neuritis	1	-	-	-	-	-
- papilloedema, e.g. increased intracranial pressure	1	-	-	-	-	-

refraction and accommodation

- astigmatism	1	-	-	-	-	-
- hypermetropia	1	-	-	-	-	-
- myopia	1	-	-	-	-	-
- presbyopia	1	-	-	-	-	-

retina

— - degeneration of macula, age dependent	1	-	-	-	-	-
- retina, vessel occlusion or bleeding	1	-	-	-	-	-
- retinal detachment	1	-	-	E	-	-
- retinoblastoma	1	-	-	-	-	-
- retinopathy, diabetic	1	-	-	-	-	-
- retinopathy, hypertensive	1	-	-	-	-	-

squint

- convergent strabismus (esotropia)	1	-	-	-	-	-
- divergent strabismus (exotropia)	1	-	-	-	-	-
- nystagmus	2	D	-	-	-	Ch
- strabismus, paralytic	1	-	-	-	-	-

vision and visual fields

- amblyopia	2	-	-	-	-	-
- diplopia	2	-	-	-	-	Ch
- hemianopia, bitemporal and homonymous	2	-	-	-	-	Ch
- loss of vision and blindness	1	-	-	-	-	-
- night-blindness	1	-	-	-	-	-
- scotoma	1	-	-	-	-	-

- suppression 1 - - - - -

Skills

additional general ophthalmological examination

- measurement of exophthalmos (Hertel) 1 - - - - -
- measurement of lacrimal production 1 - - - - -

external inspection

- conjunctivae, inspection, including fornix 3 - - - - -
- eyelash, inspection 3 - - - - -
- eyelids, inspection 3 - - - - -
- eyelids, inspection by eversion of upper lid 3 - - - - -
- inspection lacrimal apparatus, 2 - - - - -
- lymph nodes, pre-auricular, palpation 3 - - - - -
- sclerae, inspection 2 - - - - -

fundi

- funduscopy, bringing the fundus into focus 3 - - - - -
- optic disc, inspection, discrimination between normal and abnormal 3 - - - - -
- retina vessels, inspection, discrimination between normal and abnormal 3 - - - - -

intra-ocular pressure

- intra-ocular pressure, estimation by palpation 3 - - - - -

media

- anterior chamber, inspection 2 - - - - -
- cornea, determination of sensation 3 - - - - -
- cornea, inspection 2 - - - - -
- iris, inspection 2 - - - - -
- lens, inspection 2 - - - - -
- media of eye, inspection by transillumination 2 - - - - -

position of eyes

- binocular vision, assessment 2 - - - - -
- eye movements, examination 3 - - - - -
- position with corneal reflex images 3 - - - - -
- position with cover test 3 - - - - -

pupils

- pupil, direct reaction to light and convergence 3 - - - - -
- pupils, inspection 3 - - - - -

refraction

- assessment of refraction, objective (refractometry, keratometer) 1 - - - - -
- assessment of refraction, subjective 1 - - - - -

vision

- assessment of vision 3 - - - - -
- assessment of vision, infant/child 3 - - - - -

visual fields

- visual fields, Amsler panes 2 - - - - -
- visual fields, Donders confrontation test 3 - - - - -

Dermatology

___ Clinical Picture

allergic and non-allergic intolerance reactions

- allergic contact dermatitis	1	-	-	-	-	-	-
- allergic vasculitis	1	-	-	-	-	-	-
- atopic / constitutional eczema	1	-	-	-	-	-	-
- drug rash	1	-	-	-	-	-	-
- erythema multiforme	1	-	-	-	-	-	-
- erythema nodosum	1	-	-	-	-	-	-
- toxic contact dermatitis	1	-	-	-	-	-	-
- urticaria	1	-	-	-	-	-	-

alterations of pigmentation

- café au lait spots	2	D	-	-	-	-	Ch
- lentigo simplex	1	-	-	-	-	-	-
- vitiligo	1	-	-	-	-	-	-

papular and erythematous disorders

- pityriasis rosea	1	-	-	-	-	-	-
- prurigo	1	-	-	-	-	-	-
- psoriasis	2	-	-	-	-	-	Ch

pre-malignant and malignant skin lesions

- actinic keratosis	1	-	-	-	-	P	-
- basalioma	2	-	-	-	-	P	-
- Bowen's disease	1	-	-	-	-	-	-
- Kaposi's sarcoma	1	-	-	-	-	-	-
- lentigo maligna	1	-	-	-	-	-	-
- malignant melanoma	2	-	-	-	-	P	-
- squamous cell carcinoma	1	-	-	-	-	-	-

vascular diseases

- decubital ulcer	1	-	-	-	-	-	-
- lymphangitis	1	-	-	-	-	-	-
- varicosis, venous insufficiency, leg ulcers, stasis ulcer	2	-	-	-	-	-	Ch

viral infections

- herpes simplex	2	D	-	-	-	-	-
- herpes zoster and varicella	2	D	-	-	-	-	Ch
- molluscum contagiosum	1	-	-	-	-	-	-
- warts	2	D	-	-	-	-	Ch

Skills

physical examination

- dermatographism 1 - - - - -
- inspection of nails, scalp and visible mucosa 2 - - - - -
- skin inspection with magnifying glass 2 - - - - -
- skin inspection with UV A-light (Wood's lamp) 1 - - - - -

terminology of skin lesions

- description of skin lesions, primary and secondary changes, as well as distribution, expansion and configuration 2 - - - - -

Otorhinolaryngology

Clinical Picture

diseases of the inner ear

- acoustic neurinoma (vestibular schwannoma) 2 - - - - Ch
- labyrinthitis 1 - - - - -
- transverse fracture of temporal bone 1 - - E - -

diseases of the vestibular organ

- benign paroxysmal positional vertigo (cupulo- and canalolithiasis) 2 - - - - Ch
- central vestibular dysfunction 2 - - - - Ch
- Menière's disease 2 - - E - Ch
- motion sickness (kinetosis) 1 - - - - -
- sudden loss of vestibular function (vestibular neuritis) 2 - - E - Ch
- vestibular ototoxicity 1 - - - - -

facial nerve dysfunctions

- central facial nerve palsy 2 D - - - Ch
- facial nerve palsy due to borreliosis (Lyme disease) 2 D - - - Ch
- idiopathic facial nerve palsy (Bell's palsy) 2 D - - - Ch
- infectious / inflammatory facial nerve palsy 2 D - - - Ch
- neoplastic facial nerve palsy 2 - - - - -
- peripheral facial nerve palsy 2 D - - - Ch
- traumatic facial nerve palsy 2 D - - - Ch

HIV infections and AIDS

- hairy leukoplakia of the border of the tongue 1 - - - - -
- herpetic stomatitis 1 - - - - -
- Kaposi's sarcoma 1 - - - - -
- oropharyngeal thrush (candidiasis) 1 - - - - -

inflammatory diseases of the middle ear

- acute otitis media 2 - - E - -
- chronic otitis media with central perforation of tympanic membrane 2 - - - - -
- chronic otitis with effusion (glue ear) 2 - - - - -
- viral otitis 1 - - - - -

inflammatory diseases of the oral cavity

inflammatory diseases of the pharynx

malfunction of vocal cords and phonation

- disorders of phonation 1 - - - - -
- neurologic syndromes causing vocal cord paralysis 2 D - - - - -
- unilateral and bilateral palsy of recurrent laryngeal nerve 2 - - - - -

malfunctions of the nose, the paranasal sinus and the anterior skullbase

- changes of shape of external nose 1 - - - - -
- choanal atresia 1 - - - - -
- deviation of nasal septum 2 - - - - -
- facial clefts, nasal clefts, nasal fistulas 1 - - - - -

oral cavity infections of dental origin

- abscess of the floor of the mouth 1 - - - - -
- granulomas and fistulas 1 - - - - -
- pressure sores from dental prostheses 1 - - - - -

other diseases of the oral cavity

- aphthous lesions 2 - - - - -
- Bowen's disease 1 - - - - -
- hypertrophic stomatitis 1 - - - - -
- Koplik spots 1 - - - - -
- lichen ruber planus 1 - - - - -

special diseases of the salivary glands

- Heerfordt syndrome 1 - - - - -
- sialadenosis 1 - - - - -
- Sjögren's syndrome 1 - - - - -

trauma of the nose, the paranasal sinus and the anterior skullbase

- fracture of the nasal pyramid 2 - - - - -

traumas of the external ear

- injuries: laceration of ear, injury to external auditory canal 2 D - E - - -
- thermal injuries 2 D - E - - -

traumas of the larynx and the trachea

- blunt and sharp external laryngeal trauma (with fractures of cartilage and structural displacements) 1 - - E - -
- damage due to endotracheal tube 1 - - - - -
- foreign body in larynx and trachea 1 - - E - -

- thermal and corrosive injuries 1 - - E - -

traumas of the middle ear

- barotrauma 1 - - E - -
- Eustachien tube dysfunction 2 D T - - Ch
- luxation of ossicular chain 1 - - - - -
- open ("flatulous") Eustachien tube 1 - - - - -
- temporal bone fracture 2 - - E - -
- traumatic perforation of tympanic membrane 2 - - E - -

traumas of the nose, the paranasal sinus and the anterior skullbase

- fracture of zygomatic arch 1 - - - - -
- frontobasal fracture 1 - - - - -
- midfacial fractures 1 - - - - -
- orbital fractures (blow-out fracture) 1 - - - - -

traumas of the oral cavity and the pharynx

- injuries to teeth 1 - - E - -
- thermal and caustic lesions of oral cavity and pharynx 1 - - E - -
- tongue bite 1 - - E - -
- traumatic lesions of the palate 1 - - E - -

tumors of the external ear

- basalioma 2 - - - - -
- spinalioma (squamous cell carcinoma) 2 - - - - -

tumors of the larynx

- clinical symptoms of laryngeal carcinomas, incl. TNM staging system 1 - - - - -
- indications for surgery and radiotherapy 1 - - - - -
- nodules, cysts, polyps, papillomas of the vocal cord and larynx 1 - - - - -

tumors of the nose, the paranasal sinus

- basalioma, spinalioma (squamous cell carcinoma), adenocarcinoma, neuroblastoma 1 - - - - -
- mucocoeles 1 - - - - -

tumors of the oral cavity and pharynx

- benign tumours 1 - - - - -
- indications for surgery and radiotherapy 1 - - - - -
- malignant tumours, TNM staging system 1 - - - - -

tumours of the salivary glands

- benign tumours of salivary glands 1 - - - - -
- malignant salivary gland tumours 1 - - - - -

- pleomorphic adenoma (benign mixed tumour) 1 - - - - -

Skills

clinical examination of oral cavity and pharynx

- inspection of lips, oral cavity and oral pharynx 4 - - - - -
- palpation of the floor of the mouth, cheeks, tonsils and base of tongue 3 - - - - -

clinical examination of the ear

- ear irrigation 3 - - - - -
- inspection of the ear and adjacent region 4 - - - - -
- otoscopy 4 - - - - -
- palpation of auricle and mastoid 4 - - - - -
- test of tubal function (motility of ear drum) 1 - - - - -

diseases of the vestibular organ

- vestibular rehabilitation 2 - - - - -

emergency treatment of dyspnea

- coniotomy 1 - - - - -
- dyspnoea in patients with tracheal canule 1 - - - - -
- tracheal intubation 1 - - - - -
- tracheotomy 1 - - - - -

emergency treatment of hemorrhages in the ENT domain

- anterior tamponade 1 - - - - -
- treatment of haemorrhage after tonsillectomy 1 - - - - -
- treatment of other haemorrhages (after trauma etc.) 1 - - - - -

examination of the cervical region

- fine needle aspiration cytology of cervical lymph nodes 1 - - - - -
- inspection and palpation of cervical structures 4 - - - - -
- palpation of anterior neck (from behind) 4 - - - - -
- palpation of lateral neck (from front) 4 - - - - -
- palpation of thyroid gland 4 - - - - -

examination of the nose, the paranasal sinus and the face

- anterior rhinoscopy 2 - - - - -
- inspection and palpation of nose and face 4 - - - - -
- testing of sensibility (trigeminal nerve) 4 - - - - -

examination of the trachea and larynx

- external inspection and palpation of larynx 4 - - - - -

- indirect pharyngo-laryngoscopy	2	-	-	-	-	-
functional examination of oral cavity and pharynx						
- testing of deglutition	2	-	-	-	-	-
- testing of gustatory function	1	-	-	-	-	-
functional examination of the nose						
- testing of nasal respiration	2	-	-	-	-	-
- tests of olfactory function	3	-	-	-	-	-
hearing test						
- acoustic evoked potentials	1	-	-	-	-	-
- distance of hearing for whispered and for conversational voice	4	-	-	-	-	-
- measurement of stapedius reflex	1	-	-	-	-	-
- pure tone audiogram	1	-	-	-	-	-
- speech audiometry	1	-	-	-	-	-
- tuning fork tests	4	-	-	-	-	-
- tympanometry	2	-	-	-	-	-
microsurgery of the middle ear and the temporal bone						
- mastoidectomy	1	-	-	-	-	-
- petrosectomy	1	-	-	-	-	-
- stapedectomy / stapedotomy	1	-	-	-	-	-
- transtympanic ventilation tube (grommet)	1	-	-	-	-	-
- tympano-ossiculoplasty	1	-	-	-	-	-
obstructive sleep apnoe syndrome						
- CPAP-ventilation	1	-	-	-	-	-
- uvulopalatopharyngoplasty	1	-	-	-	-	-
oesophagus examination						
- barium passage of oesophagus	1	-	-	-	-	-
- endoscopy of the oesophagus	1	-	-	-	-	-
- fiberoptic oesophagoscopy	1	-	-	-	-	-
- rigid oesophagoscopy	1	-	-	-	-	-
- stroboscopy	1	-	-	-	-	-
salivary gland examination						
- bimanual palpation of submandibular glands	4	-	-	-	-	-
- fine needle aspiration cytology	1	-	-	-	-	-
- inspection and palpation of parotid gland and submandibular region	4	-	-	-	-	-
- inspection of excretory ducts of parotid gland (Stenon's duct) and submandibular gland (Warthon's duct)	3	-	-	-	-	-
- sialography	1	-	-	-	-	-

- ultrasonographic examinations of salivary glands 1 - - - - -

surgical and endoscopic interventions on larynx and trachea

- cervical lymphadenectomy 1 - - - - -
- laryngectomy 1 - - - - -
- microlaryngoscopy 1 - - - - -
- neck dissection 1 - - - - -
- thyroidectomy 1 - - - - -

surgical treatment of salivary gland diseases

- excision of submandibular gland 1 - - - - -
- parotidectomy 1 - - - - -

vestibular test

- caloric tests 3 - - - - -
- clinical testing of facial nerve function 4 - - - - -
- induced nystagmus (rotation, optokinetic) 2 - - - - -
- positional test, positioning tests 3 - - - - -
- Romberg test, Unterberger test 4 - - - - -
- spontaneous nystagmus 4 - - - - -
- tests of coordination (finger-to-nose, diadochokinesis) 4 - - - - -

voice examination

- rigid tracheobronchoscopy 1 - - - - -
- vocal status 1 - - - - -

Further Knowledge

diseases of the vestibular organ

- definiton of vertigo and disequilibrium 2 - - - - Ch
- peripheral and central vestibular dysfunction 2 D - - - Ch
- vestibular compensation 1 - - - - -

disorders of taste

- ageusia 1 - - - - -
- dysgeusia 1 - - - - -

hearing disorders

- acoustic trauma and noise-induced hearing loss 2 D - - P Ch
- central hearing loss 1 - - - - -
- cochlea implantation 1 - - - - -
- conductive hearing loss 2 D - - - Ch
- hearing aid fitting 1 - - - - -

- hearing loss: congenital and acquired
- **ototoxic hearing loss**
- presbycusis
- retrocochlear hearing loss
- **sensory neural hearing loss**

1 - - - - -
2 D - - P Ch
2 - - - - -
1 - - - - -
2 D - - - Ch

Radiology and Nuclear Medicine

Skills

radiological examination

- elaboration of a radiological report	4	-	-	-	-	-
- radiographic findings and informing the patient	4	-	-	-	-	-
- radiographic findings and chiropractic techniques	4	-	-	-	-	-
- radioprotection and x-ray technique	4	-	-	-	-	-
- X-ray of spine	4	-	-	-	-	-

Further Knowledge

contrast media

- types of contrast media	1	-	-	-	-	-
- X-ray, MRI, US contrast media: pharmacokinetics, indications, contraindications	1	-	-	-	-	-

informatics related to imaging

- contrast, viewing window	2	-	-	-	-	-
- matrix, geometric resolution	2	-	-	-	-	-
- postprocessing, data presentation	2	-	-	-	-	-

legislation on imaging data and radiation protection

- legal regulations on imaging data	2	-	-	-	-	Ch
- personal protection and monitoring (dose limits, typical dose to staff, associated risks, precautions)	2	-	-	-	-	Ch
- practical X-ray protection	2	-	-	-	-	Ch
- radiation protection law	2	-	-	-	-	Ch

Magnetic Resonance Imaging (MRI)

- magnetism, radiofrequency	1	-	-	-	-	-
- relaxation times and other factors influencing signal characteristics	1	-	-	-	-	-
- safety considerations and contraindications	1	-	-	-	-	-
- signal characteristics of important tissues	1	-	-	-	-	-

organ related radiopathology

- appendix: mass lesion	1	-	-	-	-	-
- brain and spinal canal: diffusion and perfusion abnormalities (local, general)	1	-	-	-	-	-
- brain and spinal canal: vascular abnormalities (filling defects, occlusions, abnormal vessels)	1	-	-	-	-	-
- brain: defects or atrophy of parenchyma (local, general, with enlargement of ventricles)	1	-	-	-	-	-

- brain: enlargement of ventricles (local, general)	1	-	-	-	-	-
- breast: malignant tumours	1	-	-	-	-	-
- colon: solitary mass, segmental narrowing, dilatation, fistula	1	-	-	-	-	-
- intracranial mass lesions (local, with compression of ventricles, with middle line shift, with brainstem compression)	1	-	-	-	-	-
- intramedullary, extramedullary - intradural, extradural lesions	1	-	-	-	-	-
- kidney: malformations, cystic and solid tumours, function abnormalities	1	-	-	-	-	-
- lung: alveolar consolidation	1	-	-	-	-	-
- lung: interstitial diseases	1	-	-	-	-	-
- mediastinal and hilar lesions	1	-	-	-	-	-
- pancreas: mass lesion, calcification(s)	1	-	-	-	-	-
- pelvic organs: cystic and solid tumours	1	-	-	-	-	-
- peritoneal cavity: fluid, gas	1	-	-	-	-	-
- pleural, extra-pleural and chest wall conditions	1	-	-	-	-	-
- pulmonary embolism incl. scintigraphy	1	-	-	-	-	-
- pulmonary nodules and masses	1	-	-	-	-	-
- sinonasal masses	1	-	-	-	-	-
- small bowel: solitary mass, dilatation	1	-	-	-	-	-
- spleen: enlargement, focal lesion(s)	1	-	-	-	-	-
- tracheobronchial diseases	1	-	-	-	-	-

physics of nuclear medicine

- physical and biological half-life	1	-	-	-	-	-
- principles of gamma ray detection (scintigraphy, SPECT, PET)	1	-	-	-	-	-
- radio-isotopes and radio-tracers	1	-	-	-	-	-

physics of X-ray and types of radiation used

- attenuation law	2	-	-	-	-	Ch
- basic physics of the X-ray process	2	-	-	-	-	Ch
- components of environmental radiation	2	-	-	-	-	Ch
- principles of X-ray detection	2	-	-	-	-	Ch
- production of radiation (generator, tube)	2	-	-	-	-	Ch
- types of radiation	2	-	-	-	-	Ch

principles of radio-oncology

- natural tumour development, tumour classification and TNM principles	1	-	-	-	-	-
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radiological examination

- atlanto-occipital fusion (radiological aspects)	2	D	-	-	-	Ch
- indication and interpretation of standard x-rays of the locomotor system	2	-	-	-	-	Ch
- indication of CT-Scan and MRI of the locomotor apparatus	2	-	-	-	-	Ch
- indication of other imaging methods	2	-	-	-	-	Ch

radiological knowledge

- bone: generalized and circumscribed sclerosis (incl. scintigraphy)	2	-	-	-	-	Ch
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- bone: osteolysis (incl. scintigraphy)	2	-	-	-	-	Ch
- bone: periosteal reaction	2	-	-	-	-	Ch
- bone: reduced density, generalized and circumscribed	2	-	-	-	-	Ch
- joints: erosions	2	-	-	-	-	Ch
- joints: loss of joint space	2	-	-	-	-	Ch
- soft tissue: calcification	2	-	-	-	-	Ch

risks from exposure to ionizing radiation

- calculation of effective and organ dose	1	-	-	-	-	Ch
- explaining radiation risks to patients and informed consent for exposure	2	-	-	-	-	Ch
- exposure situations (population, individual person, professional person, patient)	2	-	-	-	-	Ch

special uses of radiology

- interventional radiology: classification, indications and risks	1	-	-	-	-	-
- screening by mammography, bone densitometry	1	-	-	-	-	-

systematic radioanatomy

- arteries and veins	1	-	-	-	-	-
- bones and joints	2	-	-	-	-	Ch
- brain	1	-	-	-	-	-
- esophagus, mediastinal structures	1	-	-	-	-	-
- extremities	2	-	-	-	-	Ch
- gastrointestinal tract	1	-	-	-	-	-
- heart	1	-	-	-	-	-
- hepatobiliary system, pancreas and spleen	1	-	-	-	-	-
- lower airways - lung	1	-	-	-	-	-
- pelvis and hip	2	-	-	-	-	Ch
- peritoneal cavity, retro- and extraperitoneal space	1	-	-	-	-	-
- ribs	2	-	-	-	-	Ch
- shoulder girdle	2	-	-	-	-	Ch
- spine	2	-	-	-	-	Ch
- upper airway – upper digestive tract	1	-	-	-	-	-
- urinary tract, female and male genital tract	1	-	-	-	-	-

technical parameters of conventional radiography

- conventional analogue X-ray detection (screens, development)	2	-	-	-	-	Ch
- conventional examinations using contrast agents	1	-	-	-	-	-
- digital radiographic X-ray detection	1	-	-	-	-	-
- fluoroscopy	1	-	-	-	-	-
- influence of physico-technical parameters on image quality (contrast, geometrical resolution)	2	-	-	-	-	Ch
- scatter (use of diaphragms, grids)	2	-	-	-	-	Ch

topographic and functional radioanatomy

- conventional radiography, US, CT, MRI

1 - - - - -

Public Health, Insurance- and Occupational Medicine

Skills

community- oriented prevention

- active approach to health problems / designing a program for intervention 3 - - - - -
- formulation of chiropractic input in a multidisciplinary team 3 - - - - -
- giving health advice to groups and communities 3 - - - - -
- recognition of hazardous behavior and lifestyle in a community concerning the locomotor system 3 - - - - -

epidemiology and demography

- assessment of the degree to which a study meets the requirement of causation 3 - - - - -
- recognition of threats and severity of threats to the health of individuals and groups concerning the locomotor system 3 - - - - -

individual prevention

- counseling individuals who want to give up smoking 1 - - - - -
- giving health advice to individuals concerning the locomotor system 3 - - - - -
- identification of hazardous behavior and of a dangerous lifestyle in an individual concerning the locomotor system 3 - - - - -

investigations in occupational medicine

- taking a workplace history concerning the locomotor system 4 - - - - -
- taking an occupational case history concerning the locomotor system 4 - - - - -

occupational medicine: general principles, fundamental aspects of work including ergonomics: objectives, laws, methods

- indication, specific role and limits of preventive routine screening and advice concerning the locomotor system (upon being hired and thereafter) 3 - - - - -
- prevention principles in the workplace concerning the locomotor system: Replacing a hazardous product or process, working in a closed environment, source divers 3 - - - - -
- steps to be taken when discovering a health problem which might be attributable to one's work concerning the locomotor system; in reference to individual and groups 3 - - - - -

Further Knowledge

Accident Insurance

- accident insurance pensions and integrity compensation	2	-	-	-	-	Ch
- accident-like injuries	2	-	-	-	-	Ch
- approximate costs associated with medical care, monetary benefits, prevention pursuant to the Accident Insurance Act (UVG)	1	-	-	-	-	-
- arbiter levels in disputes between UVG insurers and health care providers or patients	1	-	-	-	-	-
- basic principles and legal foundations of the Accident Insurance Act (UVG)	2	-	-	-	-	-
- benefit principle and form (tiers payant) of accident insurance	2	-	-	-	-	-
- collaboration of UVG insurers with other social insurance providers	2	-	-	-	-	Ch
- coordination provisions of accident insurance	1	-	-	-	-	-
- criteria for receiving daily sickness benefits	2	-	-	-	-	Ch
- curtailing of benefits	1	-	-	-	-	-
- insured events and items (accident, non-occupational accident, occupational illness)	2	-	-	-	-	-
- most frequent occupational and non-occupational accidents	2	-	-	-	-	Ch
- obligation to prevention on the part of employers and employees	2	-	-	-	-	Ch
- occupational illness criteria	2	-	-	-	-	Ch
- registration procedure and chiropractor's obligations	2	-	-	-	-	Ch
- structure, main tasks and key features of the Swiss National Accident Fund (SUVA)	2	-	-	-	-	Ch

accidents

- accident rates by age group and gender concerning the locomotor system	2	-	-	-	-	Ch
- loss of potentially active years of life up to age 65 in Switzerland due to motor vehicle accidents (breakdown according to gender)	1	-	-	-	-	-
- most common types and causes of accidents concerning the locomotor system(work, household, traffic, sports) and attributable costs	2	-	-	-	-	Ch
- most relevant accidental injuries from infancy to adolescence concerning the locomotor system	1	-	-	-	-	-

basic principles of social medicine

- factors affecting life style and behaviour: culture, education, income, family, etc.	1	-	-	-	-	-
- importance of psychosocial aspects for preventive strategies concerning the locomotor system	3	-	-	-	-	-
- influence of life-events and other social stressors on health	2	-	-	-	-	-
- methods of classifying (social strata, gender, ethnic group etc.)	1	-	-	-	-	-
- minorities: specific health problems, access to health care, communication and values	1	-	-	-	-	-
- significance of and relation between social class, social role, social status and social mobility	1	-	-	-	-	-
- social and age-related causes for differences in mortality and morbidity	1	-	-	-	-	-

chiropractic practice: legal aspects and liability, patient's rights

- criteria for malpractice	2	-	-	-	-	Ch
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- legal foundations of liability 1 - - E - -
- prerequisites for liability (malpractice, injury/damage, sufficient causal relationship, negligence on the part of the chiropractor) 2 - - E - Ch
- service contract between chiropractor and patient 2 - - E - Ch

demographic and health indicators

- age-standardised indicators of health 1 - - - - -
- health data: survey instruments, scope, purposes, recording methods and institutions 1 - - - - -
- indicators: lost years of life, preventable mortality, infant mortality, etc. 1 - - - - -
- life expectancy by gender and social strata in Switzerland 1 - - - - -
- past, present and predicted trends and main factors contributing to the present demographic development in Switzerland and the world 1 - - - - -
- residential population, birth rate, death rate, life expectancy, demographic transition 1 - - - - -

disabilities

- age-standardised indicators of health 1 - - - - -
- promoting integration into society and work force of handicapped persons concerning the locomotor system 2 - - - - -

Disability Insurance Scheme (IV)

- arbiter levels in disputes between the Disability Insurance Scheme (IV) and patients 1 - - - - -
- assessment of disability 1 - - - - -
- covered benefits 2 - - - - -
- extent and duration of benefits 2 - - - - -
- funding bodies and their approximate share 1 - - - - -
- objectives, key concepts and legal foundations of disability insurance 2 - - - - -
- organisation of the Disability Insurance Scheme (IV) and the main tasks of cantonal IV agencies 1 - - E - -
- physician's role/issuing of expert reports in connection with patients receiving benefits under the Disability Insurance Scheme 1 - - - - -
- prerequisites for a pension and other benefits 2 - - - - -
- registration formalities and procedures 1 - - - - -
- reintegration measures 2 - - - - -

epidemiological methods

- additional risk variables (attributable risk, risk difference) 2 - - - - -
- attack rate, cumulative incidence rate 1 - - - - -
- causality criteria 1 - - - - -
- classification of variables according to type of data (discrete, qualitative, etc.) 2 - - - - -
- data set description: data distribution, mean value, median, variability 2 - - - - -
- distortion or bias (incl. common reasons for distortion and interference effects) 2 - - - - -
- main concepts, advantages and disadvantages of the various types of studies 2 - - - - -

- mortality variables (mortality rate, life expectancy, lethality) 2 - - - - -
- prevalence, incidence, mortality, lethality, and their interrelations 2 - - - - -
- purpose of the significance tests 2 - - - - -
- relative risk (incidence ratio and odds ratio) 2 - - - - -
- significance of p-value and the confidence interval 2 - - - - -
- survival curves 1 - - - - -

ergonomics and work organization, unemployment

- possibilities for promoting health at the workplace concerning the locomotor system 2 - - - P Ch
- substance abuse at the workplace 2 - - - - Ch

evaluation in public health

- evaluation and promotion of quality of care 1 - - - - -
- program planning and evaluation in public health 1 - - - - -

expert opinions

- duties and rights of chiropractic referees (Vertrauensärzte) 2 - - E - Ch
- role and function of chiropractic experts and expert opinion 2 - - E - Ch

global aspects of health

- different nutritional styles and their impact on the global food situation 1 - - - - -
- important global challenges for health: drinking water, AIDS, poverty, environment 1 - - - - -
- major differences between the developing and developed countries with respect to structure and cost of the health care system 1 - - - - -
- role and responsibilities of the World Health Organization (WHO) and its regional offices 1 - - - - -

health and health promotion in older individuals

- current life expectancy and trends among individuals 60 years of age and older in Switzerland in comparison with other developed countries 1 - - - - -
- important ethical and cultural aspects of appropriate chiropractic care for the elderly 2 - - - - Ch
- important preventive chiropractic and medical measures for the elderly 2 - - - - Ch

health care economy

- effects of health care remuneration on the costs of hospital and ambulatory services 1 - - - - -
- expenditures of the Swiss health care system by main provider groups (in percent) 1 - - - - -
- funding of the Swiss health care system by contributors 1 - - - - -

- percentage of gross domestic product claimed by health care expenditures in Switzerland; comparison with the USA, Germany and Fr 1 - - - - -
- political control of cost containment in health care 1 - - - - -
- socioeconomic burden of illness: direct, indirect, intangible costs 1 - - - - -
- trends and primary determinants of health care expenditures in the past 25 years in Switzerland 2 - - - - Ch

health services

- Health Insurance Law (KVG): aspects of prevention 1 - - - - -
- laws and ordinances concerning epidemics, radiation protection, labor 1 - - - - -
- legal basis of licensing of health professionals 1 - - - - -
- main functions and competencies of the national, cantonal and municipal governments 2 - - E - Ch
- responsibilities of organised home care (Spitex) 1 - - - - -
- role of non-governemental-organisations in health care (e.g. Swiss Red Cross, Cancer League) 1 - - - - -
- structural characteristics and history of the Swiss health care system 1 - - - - -
- tasks of Health Leagues 1 - - - - -

human nutrition

- composition of a healthy diet 1 - - - - -
- malnutrition in the elderly as a health risk 1 - - - - -
- overweight and obesity: epidemiology and prevention in developed countries 1 - - - - -
- recommendations for prevention of osteoporosis 1 - - - - -

insurance medicine: general introduction, concepts, financing and costs

- health care costs and main financing forms 1 - - - - -
- insurance types and forms: personal, property and liability insurance, social and private, compulsory, voluntary 2 - - E - Ch

interventional methods

- approaches to personal prevention and health promotion 1 - - - - -
- chiropractic counseling 2 - - - - Ch
- criteria for the use of screening examinations concerning the locomotor system 2 - - - - Ch
- fundamentals of diagnostic tests: sensitivity, specificity, positive and negative predictive value 2 - - - - Ch
- health education, health promotion and the underlying definition of health 1 - - - - -
- population and risk carrier strategies 1 - - - - -
- primary, secondary and tertiary prevention 1 - - - - -

life style

- life style: health and disease 2 - - - - Ch
- promoting healthy life-style 2 - - - - Ch

Military Insurance Scheme (MV)

- arbiter levels in disputes between the Military Insurance Scheme (MV) and patients 1 - - - - -
- catalogue of benefits and coordination with other insurance coverage 1 - - - - -
- items covered and conditions for coverage 2 - - E - Ch
- objectives, legal foundations and key features of military insurance 1 - - - - -
- physician's disclosure obligation toward the Military Insurance Scheme (MV) 1 - - - - -

mortality statistics

- addictions with the largest economic impact 1 - - - - -
- age-standardized death rate due to ischemic heart disease and cancer in Switzerland compared to international figures 2 - - - - -
- approximate curve of deaths in both sexes due to cardiovascular disease and cancer during the past 40 years 2 - - - - -
- main risk factors for malignancies of the upper respiratory and GI tract, esophagus and urinary bladder 2 - - - - -
- number of deaths due to drugs, alcohol and tobacco annually in Switzerland 2 - - - - -
- swiss suicide rate in comparison with other countries 1 - - - - -

nosocomial infections and infectious hazards for medical personnel

- basic principles of prophylaxis and general preventive measures (hand-washing, asepsis, sterilization and disinfection) specific precautionary measures to be taken before every high-risk procedure (e.g. surgical interventions, urine probes, catheters, endoscopy etc.) 2 - - - - -
- important infectious hazards and routes of exposure of medical personnel: viral hepatitis, HIV, tuberculosis, influenza. Preventive measures, e.g. immunization, general precautions, isolation, etc. 2 - - - - -
- measures after occupational exposure, e.g. in case of blood-borne microorganisms 2 - - - - -
- microbial reservoirs (patients, personnel, environment) and routes of transmission in hospitals, outpatient practice, by direct and indirect contact, droplets, aerosols and other vehicles 1 - - - - -
- most important diseases and carrier states requiring isolation, 1 - - - - -

- including multiresistant microorganisms
- problem of antibiotic resistant microorganisms in the hospital 1 - - - - -

occupational carcinogens

- aromatic amine 1 - - - P -
- asbestos 1 - - - P -
- benzene 1 - - - - -
- sawdust 1 - - - P -

occupational dermatitis

- allergic contact dermatitis 1 - - - P -
- toxic contact dermatitis 1 - - - P -

occupational illnesses: biological hazards

- infectious diseases, particularly in the healthcare professions, laboratory work and research 1 - - - P -

occupational illnesses: chemical hazards

- carbon monoxide 1 D - - P -
- lead 1 - - - P -
- mercury 1 - - - P -
- solvents 1 - - - P -

occupational illnesses: physical hazards

- electromagnetic fields 1 - - E - -
- noise 1 - - - - -
- vibration 1 - - - P -

occupational medicine: general principles, fundamental aspects of work including ergonomics: objectives, laws, methods

- Accident Insurance Act (UVG) and associated ordinances 1 - - E - -
- function of occupational health services 1 - - - - -
- job-related health problems (such as visual disturbances, back pain, musculoskeletal problems, impairment of mental well-being, absenteeism related to ergonomic and psychosocial work conditions and shift 2 D - - P -
- Labor Act (ArG) and associated ordinances 1 - - E - -
- mandate and function of the implementation bodies related to the Accident Insurance Act (UVG) and Labor Act (ArG) (Swiss National Accident Fund (SUVA), cantonal and federal labor inspectorates) 1 - - E - -
- occupational safety limits published by the Swiss National Accident Fund (SUVA) (MAC values, BAT values etc.) 1 - - E P -
- prevalence of key occupational illnesses recognized under the Accident Insurance Act (UVG), e.g. locomotor system, skin, 1 - - - - -

- respiratory system
- responsibility of companies for maintaining healthy working conditions 1 - - E - -
- significance of job-related accidents in various occupational groups 2 - - - - -

physical hazards

- environmental noise 1 - - - - -
- magnetic and electrical fields 2 - - - - -
- nuclear accidents 1 - - - - -
- sources of radioactive emissions in Switzerland 1 - - - - -
- UV radiation (including decrease in stratospheric ozone) 2 - - - - -

physical inactivity

- epidemiology, health risk and prevention of physical inactivity 2 - - - - -

preventive measures against infectious diseases

- characteristics, indications, contraindications, adverse events, application of routine immunizations and immunizations for certain target groups (i.e. poliomyelitis, measles, mumps, rubella, hepatitis A, hepatitis B, influenza, tetanus) 2 - - - - -
- degree and duration of immunity conferred by immunization in the individual and in the population (focal immunity) 1 - - - - -
- examples where counseling about infections is indicated: nursing mothers and newborns, population at large (HIV, gonococci, etc.) 1 - - - - -
- frequent infections of travelers to developing countries: e.g. traveler's diarrhea, malaria, forms of hepatitis, typhoid fever) 2 - - - - -
- infectious diseases of migrant workers and political refugees 1 - - - - -
- Swiss Immunization Schedule for children, adults and travelers 2 - - - - -

Private Insurance

- arbiter levels and levels of legal authority pertaining to private insurance in disputes 1 - - - - -
- key features of private insurance 2 - - - - -
- key insurance areas 1 - - - - -
- objectives, legal foundations and the supervisory authorities 2 - - - - -
- right of policy cancellation subsequent to a claim 2 - - - - -
- the policy as an insurance contract: insured risks (items), benefits and premiums 2 - - - - -
- underlying principle of individual risk (no solidarity) 2 - - - - -

recording and prevention of important infections

- exposure history to the antropozoonoses and assessment of the risk of infection (occupation, household, animal contacts) 1 - - - - -
- high-risk groups, behavior and factors predisposing to the spread of sexually transmitted diseases 1 - - - - -
- measures aimed at interrupting transmission (contacts, vehicles and vectors; isolation, chemical prophylaxis and immunization prophylaxis) 1 - - - - -

- most important anthroozoonoses (enteropathogenic infections, Q Fever, tick-borne encephalitis, Lyme Disease, rabies, toxoplasmosis, toxocarosis, echinococcosis) and their geographical distribution 1 - - - - -
- most important sexually transmitted infections (gonorrhoea, syphilis, HIV, chlamydia) 1 - - - - -
- preventive measures (e.g. campaigns, individual protective measures) against the spread of sexually transmitted diseases 1 - - - - -
- problem of antibiotic-resistant microorganisms in outpatient medicine 1 - - - - -

social and private health insurance

- conditional right of the free choice of physician and hospital 1 - - - - -
- conditions for entitlement to loss-of-income/daily sickness benefit 1 - - - - -
- **cost sharing and copayments** 2 - - - - -
- financing of health insurance, public subsidies and funding bodies involved 1 - - - - -
- **goal and duty of cost transparency, requirement of cost effectiveness in healthcare treatment** 2 - - - - -
- insured benefits for the purpose of individual disease prevention and health promotion 2 - - - - -
- **key objectives and basic principles of the Health Insurance Act (KVG)** 2 - - - - -
- key performance criteria (expedient and cost-effective) 1 - - - - -
- **legal foundations of the Health Care systems** 2 - - - - -
- legal proceedings between the patient and health insurer or healthcare provider and patient 1 - - - - -
- **main insurance models (classic health insurance and new models)** 2 - - E - -
- organizational forms of health insurers 1 - - - - -
- private supplemental insurance 1 - - - - -
- role of the health insurer's medical examiner/referee 1 - - - - -
- rough costs of health insurance schemes and their economic significance 1 - - - - -
- **social insurance coverage** 2 - - - - -
- specified lists: Pharmaceuticals List (ALT), Specialty List (SL), Analysis List (AL) and the Negative List 1 - - E - -

water and soil pollutants

- methods for drinking water purification (filtration, chlorination, ozone treatment) 1 - - - - -
- water and soil pollution: microbes, ammonia, nitrites, nitrates, pesticides and chlorofluorocarbons (CFC's) 2 - - - - -

Forensic Medicine

Clinical Picture

forensic traumatology

- asphyxia	1	-	-	-	-	-
- aspiration	1	-	-	-	-	-
- bite wounds	1	-	-	E	-	-
- blunt trauma to the skin, long bones and head	1	-	-	-	-	-
- capacity of acting after trauma (Handlungsfähigkeit)	1	-	-	E	-	-
- death by choking (Bolustod)	1	-	-	E	-	-
- drowning	1	-	-	-	-	-
- electrical injury	1	-	-	-	-	-
- gun shots	1	-	-	-	-	-
- injuries by lightning	1	-	-	-	-	-
- injuries by sharp objects	1	-	-	E	-	-
- physical and biomechanic principles	1	-	-	-	-	-
- self-inflicted injury/mutilation, second party-inflicted/accidental injury	1	-	-	-	-	-
- shaken baby syndrome	1	-	-	E	-	-
- thermal injury	1	-	-	-	-	-
- traffic injuries of pedestrians	1	-	-	E	-	-
- traffic injuries of vehicle passengers	1	-	-	E	-	-
- types of strangulation	1	-	-	-	-	-

legal aspects of injury (StGB)

- intention (Vorsatz)	1	-	-	E	-	-
- maltreatment (Misshandlung)	2	D	T	E	-	-
- mild injury (einfache Körperverletzung)	1	-	-	E	-	-
- negligence (Fahrlässigkeit)	1	-	-	E	-	-
- severe injury (schwere Körperverletzung)	1	-	-	E	-	-

sexual offences

- sexual abuse in adult	1	-	-	E	-	-
- sexual abuse in child	1	-	-	E	-	-

Skills

investigation of living persons

- assessment of ability to judge (Urteilsfähigkeit)	1	-	-	-	-	-
- assessment of aptitude to drive (Fahreignung)	1	-	-	-	-	-
- assessment of current fitness to drive (Fahrfähigkeit), e.g. under the influence of alcohol, drugs, disease and fatigue	1	-	-	-	-	-
- examination and evaluation of wounds and stains	2	-	-	-	-	-
- examination of persons under the influence of alcohol and/or drugs	2	-	-	-	-	Ch

- expert opinion (Gutachten)	1 - - - - -
- investigation of battered children	2 - - - - Ch
- sampling of blood and buccal swabs for DNA-analysis	1 - - - - -
- sampling of blood and urine for toxicological analysis	1 - - - - -
- sampling of tissues	1 - - - - -
- sampling of vaginal-, anal- and skin-swabs for DNA-analysis	1 - - - - -

Further Knowledge

forensic traumatology

- traffic injuries: biomechanics	2 - - - - Ch
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investigation of living persons

- ataxia and cerebellar syndromes	2 - - - - Ch
- formal and legal pre-requisites of a medical certificate (Zeugnis)	2 - - E - Ch

professional duties and responsibilities

- chiropractic duties in emergencies	2 - T E - Ch
- informed patient consent	2 - - E - Ch
- involuntary admission (Fürsorgerischer Freiheitsentzug)	1 - - E - -
- legal aspects of patient protection laws (access to the file, transmission of information to a third party, to insurances, or to colleagues)	2 - - E - Ch
- legal aspects of personality (Persönlichkeitsrechte, ZGB)	1 - - E - -
- screening procedures for the contraindication of spinal manipulation therapy	2 - - - - Ch