Study plan for

Specialty in Clinical Dentistry

Institute of Clinical Dentistry, Faculty of Health Sciences, University of Tromsø

A specialist dentist is a dentist trained beyond the level of a general dental practitioner and authorized to practice as a specialist with advanced expertise in a branch of dentistry. Specialized practice may include clinical, teaching, administrative, research and advisory tasks.

Council of European Chief Dental Officers 1994
Part 1.

Study plan for Specialty in Clinical Dentistry

Introduction

The study is a three-year full time program designed according to a de-centralized model, leading to a recognized specialty in “Clinical Dentistry”.

The study plan is developed according to the following guidelines (A) and publications (B):
B. "Kvalitetssystem for utdanningsvirksomheten ved Universitetet i Tromsø”. Universitetet i Tromsø 2009

Premises

The Norwegian government wanted to establish a new specialty in ‘Clinical dentistry’ including endodontics, periodontology and prosthetics/masticatory function. The Directorate for Social Affairs and Health (S&HDir) is asked by the government to lead this development. The Board for Specialist Education in Norway has unanimously recommended that the dental milieu in Tromsø (The institute of Clinical Dentistry, University of Tromsø (IKO) and The Public Dental Service Competence Center of Northern Norway (TkNN)) should lead this development (Letter of 21.12.07. from S&HDir).

According to the guidelines from S&HDir, the program should be organized in accordance with the principles of a de-centralized educational model.

The members of the Study plan committee were as follows:
- University lector Yrsa Le Bell, Institute of Clinical Dentistry, University of Turku, Finland
- Chief dental officer Rolf Mensen, Public Dental Health, Bodø
- Dentist Ragnhild Nordengen, TkNN, Tromsø
- Professor Claes-Göran Crossner, IKO, University of Tromsø
- Professor Harald M Eriksen, IKO, University of Tromsø (leader)
Specialty in Clinical Dentistry – purpose and characteristics

- ‘Clinical Dentistry’ should appear as a comprehensive clinical specialty with a ‘holistic’ profile placing the patients’ needs in the center. The specialty is aiming at adult patients’ needs, emphasizing a balanced, patient-centred approach to treatment.
- It should contain consultation and advisory duties in addition to clinical activities.
- It should have a competence-enhancing effect, particularly within the public dental health service.
- It should act as an ‘extension’ of regional competence center activities.
- The program is primarily aiming at dentists with a special interest in comprehensive clinical activities in a public dental health context.

In addition to the original topics endodontics, periodontology, prosthetics/masticatory function, the planning committee suggested that oral diagnostics and treatment planning, simple dento-alveolar surgery and gerodontology should be included. The curriculum profile should be influenced by a community dentistry approach. A ‘holistic’ approach should be emphasized qualifying the candidates for a balanced approach to complex cases. This was accepted by the S&HDir.

After graduation, the candidates should be able to independently and proficiently master diagnosis, therapy planning and integrated treatment of advanced cases in a ‘holistic’ context. In this context it will be important to establish collaboration with established specialties during the program.

A decentralized design requires access to local clinical facilities equipped with modern communication technology. This has been achieved by using the established network of external dental clinics linked to the undergraduate dental education.

Evaluation methods will be according to guidelines in the ‘Bologna process’, The Norwegian Quality Reform for Higher Education and the Guidelines for Specialty Education in Norway. Both clinical and theoretical aspects will be evaluated. In addition, a written research project is required. In addition to regular case discussions through the whole program, portfolio evaluations will be performed at the end of each year. A written exam in the Norwegian language covering all clinical topics will be performed at the end – see survey of the syllabus p.x – x. Teaching language will be Norwegian or English according to lecturers preference.

Intake should be according to generally accepted criteria stated in "Regler for spesialistutdanning av tannleger". Chief Dental Officers should have substantial influence and were geographical considerations and clinical competence should weight more than academic achievements. A quota from Northern Norway should be 60%. A minimum of two years general dentistry experience is required, preferably more.

The program has to be fully financed from external sources including salary, travelling and accommodation expenses covered for the participants.
The program is organized as a project in collaboration between S&HDir, IKO and TkNN. The Faculty of Health Sciences will be formally responsible for the program and study plan. In the process of designing the curriculum, the following documentation has been used in addition to the papers mentioned initially: Specialty programs from the dental faculties in Oslo and Bergen, Swedish specialty programs, "Specialist education" from the Faculty of Dentistry, University of Turku and “American Graduate Programs in Clinical Dentistry”. 
Part 2.

Study plan for Specialty in Clinical Dentistry
Requirement for obtaining the degree of Specialist in Clinical Dentistry

Responsible unit(s): Institute of Clinical Dentistry, Faculty of Health Sciences, University of Tromsø in collaboration with the Clinical Competence Center for Northern Norway (TkNN)

Last revised: 28.03.2011 by Harald M Eriksen

Target group: General dentists dedicated to pursue a specialty degree in comprehensive general dentistry

Extension: Three year full time according to a de-centralized design. Total hours 5000, 70% devoted to clinical activities, 30% for theoretical topics.

Mandatory entry requirements: Master-degree in dentistry (cand.odont.) and two years of general dental practice

Topic description: The specialty “Clinical dentistry” includes theoretical and clinical aspects of the following topics endodontology, periodontology, prosthetic dentistry, masticatory function and gerodontontology. In addition, oral diagnostics and treatment planning will be emphasized. The theoretical topics will be presented by the scientific staff at The Institute of Clinical Dentistry (IKO), while clinical tutors will be recruited from the Clinical Competence Center for Northern Norway (TkNN).

Pedagogic methods: During the first year, seminars will be the main teaching method. Later case-based PBL will constitute the main method both internally and for distant learning.

Study credit points: 180

Teaching language: Norwegian or English according to teacher’s preference and competence

Evaluation/exams: The candidates are supposed to collect and document all their clinical treatment cases and theoretical courses according to a portfolio design (mappe-evaluering). Treatment completed for a total of 90 referred patients is required. After the first and second year, the individual portfolios will be collected and evaluated by a commission appointed by IKO. The evaluation will conclude with an individual verbal examination based on the submitted portfolios performed by a panel of internal examiners and one external examiner.

At the end of the three-year course, an extensive written exam covering the clinical topics will be performed, evaluated by an exam commission of three persons including an external member (sensor). In addition, 5 patients selected from a complete portfolio presenting all clinical cases will be used for the examination. In addition, a scientific work representing 30 study points is required.

All requirements will be evaluated according to “Regler for spesialistutdanning av tannleger” before final submission to “Den Norske tannlegeforenings spesialistkomité” requesting a final evaluation for being awarded the degree of Specialist in Clinical Dentistry
Purpose:
- The program is focusing on adult oral health in a comprehensive, ‘holistic’ context.
- ‘Clinical dentistry’ is aiming at both clinical, consultation and advisory duties
- The program should have a competence – enhancing effect among general practitioners
- The program should act as an ‘extension’ of regional competence center activities
- ‘Clinical dentistry’-candidates should develop close collaboration with established specialists

General aims:
After graduation, the specialist in ‘Clinical dentistry’ should be able to:
- Create comprehensive treatment plans including diagnosis, appropriate preventive activities, treatment for adults within the clinical fields covered by the program
- Apply advisory duties in collaboration with consulting general dentists
- Particularly relate and give priority to underprivileged/chronically ill/disabled individuals/groups
- Perform advanced clinical treatment of complicated and/or extensive cases within the areas covered by the specialty program
- Inform about and apply relevant social security laws for financial support and regulation of clinical activities
- Adapt and acknowledge the need for proper referral routines to more highly specialized personnel when necessary
- Create continuing and graduate education programs acting as a resource person
- Perform as a clinical tutor in undergraduate and graduate education programs
- Critically evaluate and analyze scientific literature and implement evidence-based dentistry
- Conduct case presentation sessions and written case reports
- Reflect an altruistic and supportive attitude in clinical work
Part 3. Specialty in Clinical Dentistry

Curriculum design

The following figure is presenting a broad outline of the curriculum illustrating the topics included and the balance between centralized and decentralized activities. There should be compliance between topics listed in the introductory module and those presented in the curriculum outline.

(5) Tutor functions, both centralized and decentralized, should be performed by recognized specialists. Electronically guided tutoring will be secured with the external clinics.

Year 1

<table>
<thead>
<tr>
<th>1st semester</th>
<th>Introductory module, centralized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical activities</td>
<td></td>
</tr>
<tr>
<td>Introduction to the main clinical disciplines included in the program</td>
<td></td>
</tr>
<tr>
<td><strong>Introductory courses, clinical topics:</strong></td>
<td></td>
</tr>
<tr>
<td>Endodontics, periodontology, prosthodontics, gerodontology, masticatory function, oral surgery, cariology, radiology and diagnostics and treatment planning. Biomaterials, documentation routines (records, photos etc.), hygiene/infection control, ethics and professionalism</td>
<td></td>
</tr>
<tr>
<td><strong>Introductory courses, theoretical topics:</strong></td>
<td></td>
</tr>
<tr>
<td>Literature critics, library skills, biostatistics, research methodology, epidemiology</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2nd semester</th>
<th>Decentralised activities alternating with centralized activities on a 2 weeks basis through the whole semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Decentralized clinical activities</strong></td>
<td></td>
</tr>
<tr>
<td>Distance clinical tutoring including web-based case presentations.</td>
<td></td>
</tr>
<tr>
<td><strong>Centralized clinical activities</strong></td>
<td></td>
</tr>
<tr>
<td>Patient-centered clinical activities covering all clinical disciplines included in the program</td>
<td></td>
</tr>
<tr>
<td>Postgraduate courses based on distance / internal learning in:</td>
<td></td>
</tr>
<tr>
<td><strong>Clinical topics</strong></td>
<td></td>
</tr>
<tr>
<td>Endodontics, periodontology, prosthodontics, gerodontology, masticatory function, oral surgery, cariology, radiology and diagnostics and treatment planning, anxiety management Case presentations and discussions</td>
<td></td>
</tr>
<tr>
<td><strong>Basic science and para-clinical topics</strong></td>
<td></td>
</tr>
<tr>
<td>Oral microbiology, biomaterials, pharmacology, oral medicine and pathology,</td>
<td></td>
</tr>
<tr>
<td><strong>Theoretical topics</strong></td>
<td></td>
</tr>
<tr>
<td>Literature critics</td>
<td></td>
</tr>
</tbody>
</table>

Evaluation of year 1
### Year 2

<table>
<thead>
<tr>
<th>Semester</th>
<th>Details</th>
</tr>
</thead>
</table>
| 3rd semester | Mainly **decentralised** activities alternating with **centralized** activities 4 days per month through the whole semester and a **two weeks gathering**  
**Decentralized clinical activities**  
Distance clinical tutoring including web-based case presentations  
**Centralized clinical activities**  
Patient-centered clinical activities covering all clinical disciplines included in the program  
**Postgraduate courses based on distance / internal learning in:**  
**Clinical topics:**  
Case presentations and discussions covering all clinical disciplines included in the program. Anxiety management, esthetics, team-work and referrals  
**Basic science and para-clinical topics**  
Community dentistry Tutor pedagogics. Psychology/behavioural science/communication  
**Theoretical topics**  
Literature critics |
| 4th semester | Mainly **decentralised** activities alternating with **centralized** activities 4 days per month through the whole semester and a **two weeks gathering**  
**Decentralized clinical activities**  
Distance clinical tutoring including web-based case presentations  
**Centralized clinical activities**  
Patient-centered clinical activities covering all clinical disciplines included in the program  
**Postgraduate courses based on internal/distance learning in:**  
**Clinical topics:**  
Case presentations, ethics and professionalism, law, social security guidelines, psychology/behavioural science/communication, caries prevention  
**Theoretical topics**  
Literature critics |
### Year 3

<table>
<thead>
<tr>
<th>Semester</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th semester</td>
<td>Mainly <strong>decentralised</strong> activities alternating with <strong>centralized</strong> activities 4 days per month through the whole semester and a <strong>two weeks gathering</strong></td>
</tr>
</tbody>
</table>

**Decentralized clinical activities**
- Distance clinical tutoring including web-based case presentations

**Centralized clinical activities**
- Patient-centered clinical activities covering all clinical disciplines included in the program

**Postgraduate courses based on internal/distance learning in:**
- **Clinical topics**
  - Case presentations, dento-alveolar surgery, internal medicine
  - Neurology/orofacial pain, ear-nose-throat diseases
- **Theoretical topics**
  - Project work/specialist thesis

<table>
<thead>
<tr>
<th>6th semester</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th semester</td>
<td>Mainly <strong>decentralised</strong> activities alternating with <strong>centralized</strong> activities 4 days per month through the whole semester and a <strong>two weeks gathering</strong></td>
</tr>
</tbody>
</table>

**Decentralized clinical activities**
- Distance clinical tutoring including web-based case presentations

**Centralized clinical activities**
- Patient-centered clinical activities covering all clinical disciplines included in the program

**Postgraduate courses in:**
- Project work/specialist thesis
- Completion of patient portfolio

<table>
<thead>
<tr>
<th>Concluding period</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Concluding period | **Final clinical work at TkNN**
- Clinical and theoretical exams, presentation of thesis and patient portfolio. Selection of 5 representative patients for the final evaluation. |

**Final evaluation, written and verbal**
**Introductory module**

An introductory module consists of an introduction to all topics included in the clinical specialty program. The purpose is to give the participants an overview of relevant topics and to make the participants familiar with each other and the main teachers/tutors. The introductory module is organized in Tromsø during the first semester. Patient treatment planning and clinical activities are also introduced during this semester.

<table>
<thead>
<tr>
<th>Basic topics (100 h)</th>
<th>Paraclinical topics (125 h)</th>
<th>Clinical topics (100 h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community dentistry</td>
<td>Oral microbiology</td>
<td></td>
</tr>
<tr>
<td>Epidemiology</td>
<td>Biomaterials</td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td>Oral pathology</td>
<td></td>
</tr>
<tr>
<td>Research methodology</td>
<td>Oral medicine</td>
<td></td>
</tr>
<tr>
<td>Literature critics</td>
<td>Farmacology</td>
<td></td>
</tr>
<tr>
<td>Library/IKT</td>
<td>Radiology</td>
<td></td>
</tr>
<tr>
<td>Documentation techniques</td>
<td>Internal medicine</td>
<td></td>
</tr>
<tr>
<td>Tutor pedagogics</td>
<td>Neurology/Radiology</td>
<td></td>
</tr>
<tr>
<td>Psychology/behavioural science/communication</td>
<td>Orofacial pain</td>
<td></td>
</tr>
<tr>
<td>Ethics and professionalism</td>
<td>Ear-nose-throat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hygiene/infection control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnostics/treatment planning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prosthetics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radiology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Treatment planning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Endodontics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Masticatory function</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Periodontology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gerodontology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cariology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dento-alveolar surgery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esthetics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anxiety management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Team-work</td>
</tr>
</tbody>
</table>

After the initial introductory course, basic topics, paraclinical and clinical topics will be presented more extensively during the 3-year program, in part as intensive centrally organized courses, in part decentralized and communicated electronically. The topics will be blended with guided clinical and to some extent propedevtic activities in the different fields by tutors employed at IKO/TkNN. Diagnostics and treatment planning will primarily be organized electronically as case presentations. The overview of the curriculum design p. 7-8 indicates the logistics. Each topic will be described and defined in detail according to the requirement for topic descriptions given in the ‘Quality reform’ – see the syllabus section at the end.

**Specific aims**

After graduation, the specialist in ‘Clinical Dentistry’ should be able to:

**Basic science topics**

Community dentistry

- Explain oral health conditions and services in Norway
- Formulate Norwegian general and dental health legislation
- Identify and prioritize treatment needs according to objective criteria and
community-based information

Epidemiology
  Explain common epidemiological methods
  Explain the difference between descriptive and analytical epidemiology
  Explain the difference between individual and population-based scientific information

Statistics
  Identify common statistical expressions and methods
  Interpret statistical documentation in scientific papers

Research methodology
  Explain experimental, clinical and epidemiological research methods

Literature critics
  Interpret scientific literature based on knowledge about research methodology and statistics

Library skills
  Argue based on information from scientific data bases
  Perform information retrieval from scientific data-bases
  Explain the principles of writing a scientific article

Documentation techniques
  Perform writing a research report according to accepted principles
  Present a scientific or clinical report including case reports verbally or as a poster presentation

Pedagogics
  Apply basic concepts in tutor pedagogics
  Reflect and perform basic presentation principles

Psychology/behavioural science/communication skills
  Apply communicating skills with patients from all backgrounds, understanding the underlying social and socio-economical issues
  Perform a patient-centered treatment approach

Ethics and professionalism
  Produce full, accurate clinical records
  Reflect patients’ rights and handle patient complaints accordingly
  Provide appropriate care for vulnerable patients and maintain confidentiality
  Reflect patient consent based on objective information
  Explain possibilities for financial support when relevant
Paraclinical topics

Oral microbiology
- Identify the most common oral pathogens and microbial and viral infections
- Explain the concept of biofilm and biofilm formation
- Administer antimicrobial and antiviral treatments

Oral pathology
- Analyze and apply the pathogenesis and classification of oral diseases
- Analyze the etiology and processes of oral diseases
- Explain the role of laboratory investigations in diagnostic work
- Explain the causes and consequences of oral diseases
- Apply appropriate efforts for their prevention, diagnosis and management

Biomaterials
- Apply commonly used dental biomaterials
- Analyze the science that underpins the use of dental biomaterials
- Explain the limitations of dental materials
- Analyze those aspects of biomaterial safety that relate to dentistry

Pharmacology
- Explain the role of therapeutics in the management of patients requiring dental treatment including side-effects
- Apply common therapeutics used in the dental clinic and explain their side-effects

Internal medicine
- Explain the pathological features and dental relevance of common disorders of the major organ systems
- Explain the main medical disorders that may impinge on dental treatment
- Analyze the complex interactions between oral health, nutrition, general health, drugs and diseases that can have an impact on dental care and disease;

Neurology
- Explain cranial nerves and their distribution in the head and their connections with autonomic nervous system, headaches and facial pain.

Orofacial pain
- Perform diagnosis and treatment planning related to oro-facial pain
- Explain epidemiology of orofacial pain, with different pain mechanisms, new strategies (eg multiprofessional) for treatment of orofacial pain conditions

Ear – nose – throat diseases
- Explain diseases, tumours and fractures in the ear-nose-throat region
- Explain diseases and tumours of the salivary glands.
- Analyze current treatment principles of these diseases.
Hygiene/infection control

- Explain the scientific principles of sterilization, disinfection and antisepsis
- Implement these principles in the clinic

Clinical topics

Diagnosis and treatment planning

- Collect and analyze information from patients with relevance to oral conditions
- Explain the correlation between oral and general conditions
- Analyze diagnostic uncertainty, sensitivity, specificity and diagnostic power
- Apply evidence-based treatment planning
- Analyze the patients’ circumstances and wishes in the treatment planning process
- Reflect the role as consultant and tutor regarding diagnosis and treatment planning

Prosthetics

- Perform proper prosthetic diagnosis and treatment planning in advanced prosthetic and oral rehabilitation cases
- Perform advanced prosthetic treatment including implant-supported constructions
- Perform appropriate referrals to and establish collaboration with a prosthetic specialist

Radiology

- Apply the principles which underlie dental radiographic techniques, particularly digital imaging
- Execute the various film views used in general dental practice
- Analyze radiographic images and be able to write an accurate radiographic report
- Explain the hazards of ionizing radiation and regulations and protection relating to them

Endodontics

- Perform endodontic diagnosis and treatment planning properly considering future use of the tooth/teeth
- Perform advanced endodontic treatment using rotary instrumentation and generally accepted techniques
- Perform endodontic apical surgery

Masticatory function

- Analyze the principles of occlusion in all fields of dentistry
- Apply diagnosis, treatment planning and treatment of TMD patients

Periodontology

- Perform periodontal diagnosis and treatment planning properly considering future use of the tooth/teeth
- Perform evidence-based treatment of advanced periodontal conditions including surgical procedures
Perform referrals to and establish collaboration with relevant specialists if necessary
Analyze the basic biological and technical aspects of osseointegrated implants

Gerodontology
Describe natural ageing processes
Analyze the complexity related to interactions between different diseases and their treatment among the elderly
Analyze oral conditions and diseases among the elderly
Develop preventive and treatment strategies for the elderly (Group C) in collaboration with other health workers
Treat oral diseases among the elderly with proper consideration to their general health status
Communicate and collaborate with other health personnel involved
Act as a consultant and tutor regarding gerodontologic questions

Oral disease prevention
Apply commonly used individual oral disease-preventive techniques including the utilization of fluorides, oral hygiene, food selection, tobacco and alcohol use.
Plan and implement preventive programs and activities on individual and population levels
Act as a consultant and tutor regarding oral disease prevention

Dento-alveolar surgery
Diagnose dento-alveolar and oral diseases
Perform treatment planning and proper treatment of dento-alveolar conditions
Analyze indications and contra-indications for surgical treatment
Perform simple dento-alveolar surgery procedures

Cariology
Analyze and describe the etiology of dental caries
Explain caries histo-pathology
Analyze caries risk factors and perform caries risk analyses
Apply reflect on appropriate caries-preventive methods
Perform common restorative methods and techniques

Esthetics
Discuss esthetic concepts related to teeth and facial appearance
Perform adhesive dentistry and ‘cosmetic’ restorations
Act as a consultant and tutor regarding esthetic topics and treatment options

Anxiety management
Manage fear and anxiety with behavioural techniques and empathise with patients in stressful situations;
Analyze when, how and where to refer a patient for general anaesthesia
Apply conscious sedation techniques in clinical practice.
Act as a consultant and tutor regarding anxiety management
Team-work/comprehensive oral care
Working with other members of the dental team
Analyze how to provide a comprehensive approach to oral care

Part 4. Organization

The specialty in ‘Clinical dentistry’ is part of the Institute of Clinical Dentistry (IKO) portfolio. The program will be organized in close collaboration with the Public Dental Service Competence Center of Northern Norway (TkNN) being responsible for clinical training of the candidates.

Head of the program – a ‘Study rector’ or ‘Program director’ – with both administrative and clinical duties has to be employed and detailed working guidelines and description of responsibilities developed. This position requires qualifications comparable to an associate professor with a clinical specialty within one of the main topics included in the program. The following figure indicates the organization of the specialty:

![Organization Chart]

The organization chart illustrates the shared responsibilities between ICO and TkNN. The main employer for the ‘Study rector’ will be ICO. In addition, a part-time (20%) position at TkNN will be included.

In principle, the program is fully financed externally (The Directorate of Health). A budget for the program including both calculated expenses at The Institute of Clinical Dentistry and at The Clinical Competence Center.

Among members of the scientific staff, heads of the different clinical topics at ICO will be responsible for their topics including the theoretical education as part of their professional duties. However, due to the manpower situation at ICO, external lecturers have to cover a substantial
part of the education (see budget). If they in addition have tutorial duties in the clinic, an extra
salary will be included. ICO will collect an overhead fee for administrative duties, use of
department equipment etc. Teaching facilities will be provided at ICO and TkNN. Electronic
communication equipment at external clinics has to be purchased and mounted if not available at
already established external clinics in order to facilitate distance learning and tutoring.

Clinical tutoring will be provided by the team of specialists at TkNN. Hiring of specialists
from outside the TkNN-staff as tutors may be necessary. This will require extra financing.

Clinical facilities and secretary assistance will be available at TkNN. Expenses for this
support is included in the budget.