

**Proposal for accreditation of the Study Programme in Dental Medical
Education, University of Bern**

OAQ Report

October 2011

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1 Frame of reference, object and procedural steps

1.1 Frame of reference

The accreditation of study programmes leading to a Federal Diploma in Medicine is mandatory according to the Federal Law on Financial Aid to Universities of 8 October 2009 (UFG)¹ and to the Federal Law on Medical Professions of 23 June 2006 (MedBG, Art. 23 § 1)². Art. 24 § 1 MedBG defines the criteria that must be fulfilled for accreditation of study programmes in addition to the accreditation requirements according to UFG. The legally defined educational objectives are of key importance (Art. 4 MedBG, Art. 6-10 MedBG).

The quality assessment is based upon quality standards that were developed by the Deans of the five Swiss Medical faculties, in cooperation with the Swiss Center of Accreditation and Quality Assurance in Higher Education (OAQ) and the Federal Office for Public Health (FOPH). They were based on the internationally accepted "Basic Medical Education WFME Global Standards for Quality Improvement"³ and authorised on 11 June 2003 by the Joint Commission of the Swiss Medical Schools (SMIFK). Under the mandate of the FOPH, in 2007 the Quality standards were revised by the OAQ and adapted to the requirements of the MedBG.

This work resulted in the developments of the quality standard set "Accreditation of Study Programmes in Basic Medical Education. Quality Standards"⁴, dated February 2010, which comprises the educational objectives specified in Art. 4, 6, 7, 8 of the MedBG as well as the general quality standards for study programmes outlined in Art. 10 and 12 of the Accreditation Guidelines of the Swiss University Conference (SUC)⁵.

These procedures foresee the assessment of fulfilment of the accreditation criteria according to the MedBG as well as the fulfilment of the quality standards according to the SUC Accreditation Guidelines.

Between March 2010 and August 2012 the OAQ conducts the accreditation procedures of all the Bachelor and Master programmes in Veterinary Medicine, Human Medicine and Dental Medicine as well as Chiropractics.

The accreditation proposals to the two accrediting bodies, the SUC (UFG criteria) and the Swiss Accreditation Council (MedBG criteria) are each limited to the respective quality criteria. However, the accreditation decision according to UFG is a precondition for accreditation according to MedBG.

¹ Bundesgesetz über die Förderung der Universitäten und über die Zusammenarbeit im Hochschulbereich vom 8. Oktober 1999 (UFG), SR 414.20.

² Bundesgesetz über die universitären Medizinalberufe vom 23. Juni 2006 (MedBG), SR 811.11.

³ Die Originalstandards der World Federation of Medical Education (WFME) sind abrufbar unter www.wfme.org

⁴ www.bag.admin.ch/themen/berufe/03937/03939/index.html?lang=de

⁵ Richtlinien der Schweizerischen Universitätskonferenz für die Akkreditierung im universitären Hochschulbereich vom 28. Juni 2007 (Akkreditierungsrichtlinien/Accreditation Guidelines), SR 414.205.3.

The conceptual planning of the procedures as well as all accompanying instruments (quality standards, guidelines) were defined by the OAQ under the mandate of the FOPH and in cooperation with the SUC and the FOPH itself.

1.2 Object of the accreditation procedure

The object of the accreditation procedure is the full study cycle (Bachelor + Master) in Dental Medicine offered at the Faculty of Medicine of the University of Bern.

The University of Bern is a full research university with 14.926 students in 2010. The Faculty of medicine is one of the 8 faculties of the University of Bern. This Faculty of Medicine offers study programmes in Human Medicine, in Dental Medicine, in Biomedical Sciences and in Biomedical Engineering for a total of almost 2.400 students.

The study programme is organised according to the Bologna Reform and includes 3 years (180 ECTS) leading to a bachelor degree (B Dent Med) and 2 years (120 ECTS) leading to the master (M Dent Med). The first two years of the study programme are completed together with students of human medicine. The bachelor degree gives right of admission to the master programme. It is intended for the students to enter the master programme directly when the bachelor has been obtained.

In an earlier form the study programme was the object of a pilot accreditation in 1999.

In the Swiss System of Higher Education any student holding a "Matura" or an equivalent diploma gains admission into any study programme of a Swiss university. The only exception is medicine where the number of study places is limited. Most cantons have agreed to base admission on a central aptitude test. Through the bernese Law on University from 1996⁶, the "*admission of students [...] can be exceptionally limited.*" Therefore, a *numerus clausus* is applied to enter the B Dent Med at the University of Bern through the test of aptitudes controlled by the CRUS each year.

Since 2010 the Faculty offers 35 study places per year in dental medicine. In the academic year 2010-11 the total number of students in dental medicine at the University of Bern was 185.

The programme is taught by academic staff of the University of Bern and by academic staff of the Zahnmedizinische Kliniken "ZMK". The latter may be members of the Faculty of Medicine or not. According to the annual report of the University of Bern for the year 2010, 85 professors and 105 academic staff (with Habilitation) are active in the Faculty of Medicine.

⁶ Gesetz vom 5. September 1996 über die Universität im Kanton Bern.

1.3 Procedural steps

23.11.2010	Opening of the procedure
16.03.2011	Approval of the expert panel by the Scientific Advisory Board of the OAQ as well as by the Swiss Accreditation Council
25.03.2011	Self-evaluation report of the Medical Faculty, University of Bern
01. - 04.05.2011	On-site visit of the unit under accreditation
10.06.2011	Preliminary expert report
23.06.2011	Position statement of the Medical Faculty, University of Bern
15.07.2011	Definitive expert report
10.08.2011	Draft OAQ report with proposal on accreditation decision
29.08.2011	Statement of the Scientific Advisory Board of the OAQ
28.09.2011	Statement of the MEBEKO
10.10.2011	Definitive OAQ report with proposal on accreditation decision

The procedure was properly conducted under all formal aspects and legal requirements.

1.4 The panel of experts

- Prof. Dr. Harry F.P. HILLEN, Peer Leader (Maastricht University, The Netherlands)
- Prof. Dr. Claire DE BURBURE DE WESEMBEEK (Université Catholique de Louvain, Belgium)
- Prof. Dr. Jacob M. TEN CATE (University of Amsterdam, The Netherlands)
- Prof. Dr. Gottfried SCHMALZ (University of Regensburg, Germany)
- Prof. Dr. Wilhelm VETTER (University of Zürich, Switzerland)
- Emma KORTEKANGAS, Student (University of Lausanne, Switzerland)

1.5 Reference documents

- Self evaluation report of the University of Bern, dated 25 March 2011⁷
- Definitive expert report dated 15 July 2011
- Position statement of University of Bern, dated 23 June 2011
- Statement of the MEBEKO dated 28 September 2011

⁷ This report is the English translation. The original German text is authoritative.

2 External Evaluation

2.1 The self-evaluation report

In the self-evaluation report of the study programmes in dental medicine at the Medical Faculty in Bern a description is given of the actual situation of the Faculty precisely following the nine quality areas.

The expert group noted that self-evaluation report was more descriptive than analytical. The Faculty presented an extensive description of mission and objectives, curriculum, students, students' assessment, academic staff, educational resources, programme evaluation, governance/administration and quality assurance. A list of 58 appendices was added to give more background information or more detailed information. At the end of the report only a very short SWOT analysis of each of the nine quality areas was given.

Having said that, the expert panel concluded that the self-evaluation report provided the necessary information basis for the site visit. In the opinion of the experts a more critical and self-reflective self-evaluation report would have added value for the faculty.

2.2 The on-site visit

The on-site visit by the experts took place between May 2nd and May 4th. The briefing of the expert team by the agency took place on the eve of the visit, 1st of May.

The site visits of medicine and dentistry were combined. The 6 members of the expert panel were responsible for the evaluation of the two programmes. The expert team, supported by two OAQ scientific collaborators, had the opportunity to meet the Faculty members invited for the different meetings and to visit the clinical infrastructure of medicine and dentistry, as well as the Institute of Medical Education and the Learning Centre for bachelor students.

According to the experts, the quite intense programme of the site visit was performed smoothly and effectively. The combination of the site visit medicine and dentistry proved to be feasible and efficient. It is the opinion of the experts that the information obtained from the self-evaluation report and during the site visit allows a thorough evaluation of the compliance of the study programmes in medicine and dentistry with the predefined quality standards.

2.3 Assessment of the fulfilment of the quality standards

Based on the individual examination areas the experts have highlighted the following strengths of the unit under accreditation:

- Curriculum:

The involvement of a defined number of experienced dental practitioners into the master part of the dental educational programme is best practice in learning in the context and development of professionalism.

The quality of clinical teaching directed at the practice of dentistry, with emphasis on practical clinical diagnostics, treatment planning and actual treatment in courses, where all dental disciplines are integrated, is a definite strength of the dental education.

Scientific methods are taught as a longitudinal learning-line directed at lifelong learning.

- Education:

Professors and academic staff are involved and interested in teaching and training of the students.

The Institute of Medical Education is a strong asset for the innovation and guidance of the educational programme.

The quality of the portal Studmed and the ICT support of e-learning are very good.

As for the weaknesses, the expert panel has underlined the following:

- Continuity of the problem-based learning (PBL) system;

It is the conviction of the experts that PBL has essential added value for the Faculty. However, the present information and training of students and staff about PBL is obviously not sufficient for a general support and motivation by students and staff.

- Some reform of the Bachelor programme required;
- Low level of participation of students in the gremia of the Faculty;
- Too few elective courses in the bachelor programme;
- Some aspects of academic education are missing in the curriculum:

While science is a strong point of the curriculum, some aspects of academic education are missing, such as a programme of philosophy of science and medicine, history of science, cultural aspects of science, relationships of medicine and art, which could help to educate broad-minded doctors.

In order to comply with the MedBG criteria, not every single quality standard needs to be completely fulfilled. The recommendation for accreditation by the experts and the accreditation agency is the result of a global judgement taking into account evidences at the level of sub-areas of examination.

The experts concluded that all sub-areas and standards are fulfilled, except the sub-area 5.1 and the standard 6.6.2 are partially fulfilled. Taking into account the information provided by the Faculty of Medicine, the experts decided to assign recommendations in both cases.

The panel of experts recommends the accreditation of the study programmes bachelor of dental medicine and master of dental medicine at the University of Bern, without any condition. The expert panel has indicated eight recommendations for the quality

improvement of the study programme and for its further development.

2.4 Compliance with the legal requirements

The expert panel concludes that the medical curriculum under consideration complies with the legal requirements foreseen by Art 24 MedBG.

2.5 Position statement of the unit under accreditation on the expert report

The Medical Faculty of the University of Bern and the ZMK have accepted the expert report, the analysis made therein and the recommendations from the expert panel. Their comments were taken into consideration by the expert panel, but no change was made in the expert report.

2.6 Consultation of the OAQ Scientific Advisory Board

The OAQ sent the self-evaluation report, the expert report, the comments of the unit under accreditation and the OAQ's draft report to its Scientific Advisory Board on 19.08.2011 for consultation. The Board provided comments that could be taken into account in the final report.

2.7 Consultation of the MEBEKO

The OAQ sent the self-evaluation report, the expert report, the comments of the unit under accreditation and the OAQ's draft report to the MEBEKO on 19.08.2011 for the first consultation, according to Art. 27 § 5 MedBG. The OAQ received the statement on 28 September 2011 and considered it in its final report.

3 Conclusions of the OAQ

Based on the self-evaluation reports, the expert report, the position statement of the unit under accreditation, the statement of the MEBEKO and the Scientific Advisory Board, the OAQ concludes that the Study Programme in Dental Medical Education of the University of Bern fulfils the quality standards for accreditation of the FOPH.

The recommendations formulated in the expert report are intended by the experts to contribute to the development of the quality of the study programme. The OAQ agrees with the recommendations of the experts.

3.1 OAQ's proposal for accreditation according to UFG for the attention of the SUC

Concluding that the Study Programme in Dental Medical Education of the University of Bern fulfils the accreditation standards pursuant to art. 10 of the Accreditation Guidelines the OAQ thus proposes:

Unconditional accreditation of the Study Programme in Dental Medical Education of the University of Bern for a period of 7 years.

3.2 OAQ's proposal for accreditation according to MedBG for the attention of the Swiss Accreditation Council

Concluding that the Study Programme in Dental Medical Education of the University of Bern fulfils the objectives and accreditation criteria pursuant to Art. 4, 6, 7, 8 and 24 of the MedBG, the OAQ thus recommends for the attention of the Swiss Accreditation Council:

Unconditional accreditation of the Study Programme in Dental Medical Education of the University of Bern for a period of 7 years.

3.1 Antrag des OAQ auf Akkreditierung gemäss UFG an die SUK

Das OAQ kommt zum Schluss, dass der Studiengang in Zahnmedizin die Akkreditierungsstandards gemäss Art. 10 der SUK-Richtlinien erfüllt.

Daher beantragt das OAQ: Akkreditierung ohne Auflagen des Studiengangs in Zahnmedizin der Universität Bern für sieben Jahre.

3.2 Antrag des OAQ auf Akkreditierung gemäss MedBG an den Schweizerischen Akkreditierungsrat

Das OAQ kommt zum Schluss, dass der Studiengang in Zahnmedizin der Universität Bern die Ziele und Akkreditierungskriterien gemäss Art. 4, 6, 7, 8 und 24 MedBG erfüllt.

Daher beantragt das OAQ die Akkreditierung ohne Auflagen des Studiengangs in Zahnmedizin der Universität Bern für sieben Jahre.

3.1 Proposition de l'OAQ relative à l'accréditation selon LAU adressée à la CUS

L'OAQ certifie que la filière d'études en médecine dentaire satisfait aux standards d'accréditation conformément à l'Art. 10 des directives de la CUS et propose l'accréditation sans condition de la filière d'études en médecine dentaire de l'université de Bern pour 7 ans.

3.2 Proposition de l'OAQ relative à l'accréditation selon LPMed adressée au Conseil suisse d'accréditation

L'OAQ certifie que la filière d'études en médecine dentaire satisfait aux objectifs et critères d'accréditation conformément aux Art. 4, 6, 7, 8 et 24 de la LPMéd et propose l'accréditation sans condition de la filière d'études en médecine dentaire de l'université de Bern pour 7 ans.

**Academic accreditation in Switzerland
Expert report**

Faculty of Medicine, University of Bern

Study programme in dental medicine

15/07/2011

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1. Introduction

The accreditation for programmes leading to the Federal Diploma in Dental Medicine is mandatory according to the Federal Law on Medical Professions from 23 June 2006 (MedBG: Art. 23 Para. 1).¹ Accordingly, the study programmes must fulfil the criteria of the Federal Law on Financial Aid to Universities from 8 October 1999 (UFG)² and those of the MedBG in order to be accredited. Article 24 Para. 1 of the MedBG lists the specific criteria, which must be fulfilled for accreditation. The legally anchored educational objectives (Art. 4, 6-10 Medical Professions Act) are of central importance.

The accreditation procedure examines the quality of the study programmes on the basis of pre-defined quality standards. These standards are based on quality standards developed by the deans of the five Swiss faculties of medicine in cooperation with the Center of Accreditation and Quality Assurance of the Swiss Universities (OAQ) and the Federal Office of Public Health (FOPH). They have been developed based on the internationally accepted "Basic Medical Education WFME Global Standards for Quality Improvement"³ and authorised on 11 June 2003 by the Joint Commission of the Swiss Medical Schools (SMIFK). In 2007 on behalf of the FOPH, the OAQ revised and adapted the conditions concerning dental medicine to the new MedBG. The four dental centres of the universities of Basel, Bern, Geneva and Zurich are responsible for the continuous actualization of the fundamental skills and knowledge of dentistry.

Not every single quality standard must be completely fulfilled in order to qualify for accreditation based on MedBG criteria. The recommendation for accreditation by the experts and the accreditation agency, as well as the decision by the independent accreditation body (Art. 47 Para. 1, MedBG) is the result of a global judgment.

The present report reflects the estimation of the expert group that was appointed by the OAQ for this accreditation procedure. The expert group analyzed whether the study programmes in dental medicine at the University of Bern fulfill the quality standards defined for this accreditation procedure.

The judgment of the expert group is based on the self-evaluation report of the University of Bern, on various interviews carried out with all stakeholders during the on-site-visit and as well as on the visits on the university hospital and the teaching infrastructure.

¹ www.admin.ch/ch/d/sr/8/811.11.de.pdf

² www.admin.ch/ch/d/sr/4/414.20.de.pdf

³ The original standards of the World Federation of Medical Education (WFME) can be found at www.wfme.org.

2. Accreditation procedure

2.1. Presentation of the unit

The University of Bern is a full research university with 14.926 students in 2010. The Faculty of medicine is one of the 8 faculties of the University of Bern. This Faculty of Medicine offers study programmes in Human Medicine⁴, in Dentistry⁵ in Biomedical Sciences and in Biomedical Engineering for a total of almost 2.400 students.

This report concerns the compliance of the bachelor programme dentistry and the master programme dentistry with the quality standards published by OAQ and FOPH.

Since 2010 the Faculty offers 35 study places per year in dental medicine. A Swiss federal standardised aptitude test is required for admission to the study programme. In the academic year 2010-11 the total number of students in dentistry at the University of Bern was 185.

The study programme is organised according to the Bologna Reform and includes 3 years (180 ECTS) leading to a bachelor degree and 2 years (120 ECTS) leading to the master. The bachelor degree gives right of admission to the master programme. It is intended for the students to enter the master programme directly when the bachelor has been obtained.

The present bachelor programme was first started in the academic year 2006-07, the master programme in 2009-10.

The programme is taught by teachers of the University of Bern and by teachers of the Zahnmedizinische Klinik "ZMK". The latter may be members of the Faculty of Medicine or not. According to the annual report of the University of Bern for the year 2010, 85 professors and 105 teachers having the status of Privatdozent (with Habilitation) are active in the Faculty of Medicine.

2.2. Self-evaluation report

In preparation for the accreditation procedure the Faculty has carried out a self-evaluation, subsequently has written a self-evaluation report (March 25, 2011). This report was sent to the OAQ and experts four weeks before the site visit, thus following the MedBG and the Accreditation Guidelines of the Swiss University Conference (SUC). According to the OAQ Guidelines for Self-Evaluation the self-evaluation report should be descriptive and analytical, including a SWOT analysis for each area of evaluation.

In the self-evaluation report of the study programmes in medicine at the Medical Faculty in Bern a description is given of the actual situation of the Faculty precisely following the nine OAQ quality standards. The Faculty presented an extensive description of mission and

⁴ In this report Human Medicine will be indicated as medicine

⁵ In this report Dental Medicine will be indicated as dentistry

objectives, curriculum, students, students' assessment, academic staff, educational resources, programme evaluation, governance/administration and quality assurance. A list of 58 appendices was added to give more background information or more detailed information.

The self-evaluation report comprising 10 chapters was more descriptive than analytical. A very short SWOT analysis (chapter 10) of each of the nine quality areas was given at the end of the report.

A steering committee of 5 dental staff members wrote the different chapters of the report. The Faculty did not find enough time to circulate the concept of the report widely in the faculty for discussion and feedback. Time restraint due to the English translation was the main reason for this. During the site visit it appeared, however, that most, if not all, of the interview partners of the expert panel had received and read the report. The interviewed members of faculty committees, professors, teachers, students and administrative staff declared that the content of the self-evaluation report was a reliable and representative document.

The expert panel concluded that the self-evaluation report provided the necessary information basis for the site visit. In the opinion of the experts a more critical and self-reflective self-evaluation report would have added value for the faculty.

Recommendation 1: A more intensive self-reflection on strengths and weaknesses of the Faculty and broad involvement of the academic and non-academic staff in the preparation of the self-evaluation report to improve the quality of the report is recommended.

2.3. Group of experts

Peer leader:

- **Prof. Dr. Harry F.P. Hillen**
Dean emeritus Faculty of Health Medicine and Life Sciences, Maastricht University

Experts:

- **Prof. Dr. Claire de Burbure de Wesembeek**
International Relations Coord. for UCL Health Sciences, Invited Lecturer and Medical Education Advisor, Université catholique de Louvain
- **Prof. Dr. Wilhelm Vetter**
Former director, Medical Policlinic, University Hospital Zürich
- **Emma Kortekangas**
4th year student in basic medicine at University of Lausanne

Experts (dental medicine):

- **Prof. Dr. Gottfried Schmalz**
Lehrstuhlinhaber und Direktor der Poliklinik für Zahnerhaltung und Parodontologie,
Universität Regensburg
- **Prof. Dr. Jacob M. ten Cate**
Professor of Experimental Preventive Dentistry, Prorector, University of Amsterdam

2.4. On-site-visit

The group of experts performed a site visit to the Faculty during 3 days from May 2nd to May 4th, 2011. The site visit was prepared by the experts through examination of the self-evaluation report and the associated documents. A briefing session was organised the day before the site visit. During this briefing OAQ members Mr. Berchtold von Steiger and Ms. Monika Risse provided information on the accreditation procedure in Switzerland and on the guidelines for the site visit. The experts discussed the programme of the visit and defined the items which had to be addressed during the visit. These items included specific questions of the experts as a result of the analysis of the self-evaluation, clarification of organisational items and additional information on educational resources.

In accordance with the OAQ assignment the site visits of medicine and dentistry were combined. The 6 members of the expert panel were responsible for the evaluation of the two programmes. Therefore all experts attended all the interviews during the site visit. Only those visits aimed at evaluating educational infrastructure and clinical facilities were done separately for medicine and dentistry. Two experts (JC, GS) visited the ZMK building and facilities for dentistry, the other experts visited the infrastructure for medical education, including bedside teaching in the University Hospital.

During the site visit 14 sessions of each 60-70 minutes for interviews with stakeholders, academic- and non-academic staff, students, alumni and with representatives of relevant external professional and societal organisations were held. Besides the visits to the clinical infrastructure of medicine and dentistry, a visit to the Institute of Medical Education and to the Learning Centre was organised. The site visit was concluded in a debriefing session. In this session, a first preliminary report of the experts was presented by the peer leader. Professor Schmalz reported specifically on the evaluation of dentistry.

The site visit was well organised. During the site visit the experts were accompanied and supported by the OAQ members. The Dean and the Dean's office were helpful and supportive, so that the quite intense programme of the site visit could be performed smoothly and effectively. The combination of the site visit medicine and dentistry proved to be feasible and efficient.

During the site visit the experts were able to crosscheck and verify the information of the self-evaluation report. The experts acquired additional useful information by means of interviews and visits. It is the opinion of the experts that the information obtained from the self-evaluation report and during the site visit allows a thorough evaluation of the compliance of the study programmes in medicine and dentistry with the predefined quality standards.

3. Compliance with the Quality Standards

During the final expert meeting, the expert panel made an overall evaluation for each of the nine quality areas, according to the FOPH quality standards. Furthermore the experts assessed the compliance with the quality standards within each sub-area and gave recommendations for quality improvement. There appeared to be a high degree of consensus amongst the experts, so that decisions were made unanimously for all areas and sub-areas.

- The expert panel has applied the OAQ assessment system for the Standard compliance: fulfilled / partially fulfilled / not fulfilled.
- In some sub-areas, fulfilled or partially fulfilled, the expert panel has formulated recommendations. The experts found no areas where conditions had to be formulated for the accreditation.

3.1. Area 1: Mission and Objectives

3.1.1 Sub-area: Mission and Objectives

Standards:

- 1.1.1 *The faculty of medicine⁶ defines its mission and objectives and makes them known publicly. The mission statement and objectives describe the educational process. After completion of the programme, dentists have the ability to practice their profession as well as an appropriate basis for further training in any specialised branch of dental medicine. They are able to take responsibility for their role as dentists in the health care system.*

This standard has been specifically addressed in the session with the Steering Committee, responsible for the self-evaluation report, and with the Governance of University, including the Rector and Vice-Rector and with the Management of the Faculty, i.e. Dean and Vice-Deans.

The Faculty of Medicine at the University of Bern and the University of Bern Zahnmedizinische Kliniken (ZMK) have a longstanding tradition of practical dental education. The tradition of practical dental education has been continued in the present Mission Statement and Objectives, as published in the “Fakultäre Strategie 2004-2008”, in the “Leistungsvereinbarung Universität-Fakultät 2007-2010” and in the “Strategie 2012 der Universität”. The Faculty wants to teach “state of the art” dentistry, with emphasis on the combination of biomedical sciences and clinical practice. The Faculty strives for a close relation between scientific research and education. The Faculty aims at the education of professional doctors, prepared for lifelong learning to serve the general public in a creative, critical and responsible way. Therefore the faculty has adopted modern teaching methods such as problem based learning (PBL) and learning directed at objectives and competencies, such as defined in the Swiss Catalogue of Learning Objectives for dental

⁶ The study programme in dental medicine is integrated into the faculty of medicine. This document is specifically addressed to those responsible for the study programme in dental medicine, however, the term “faculty of medicine” will be used for simplicity’s sake.

education, which was compiled and agreed upon by the four dental centres of the universities of Basel, Bern, Geneva and Zurich.

After completion of the study programme, the master degree gives admission rights to the Federal Exam in Dentistry. The Federal Exam and Diploma are prerequisites for the postgraduate training.

Comments: The Medical Faculty was characterised as a pioneer in dental education in Switzerland by some of the interviewed “outsiders”. This aspect could be more outspoken in a renewed mission statement. It is the opinion of the experts that the Faculty has the knowledge and infrastructure to resume this role as pioneer and as a national and international centre of excellence in dental education.

1.1.2 *The mission statement and the objectives take into consideration social responsibility and community involvement.*

The mission of the Faculty includes continuous education for persons active in the health system and in medical and dental research. The study programme prepares for the different roles of the dentist that are of importance for the society. Learning objectives directed at communication, preventive dentistry, public health and professionalism are defined. The mission statement especially stresses the importance of prevention in dentistry and its implementation in the daily work of the dentist within the community.

1.1.3 *The mission statement and objectives are compatible with the strategic planning and the research goals.*

The mission statement and objectives are in agreement with the published strategy of the University of Bern and the Faculty of Medicine. The faculty has defined research goals and clinical research areas in agreement with the mission.

Conclusions: standard 1.1.1 fulfilled
 standard 1.1.2 fulfilled
 standard 1.1.3 fulfilled

3.1.2 Sub-area: Participation in formulation of Mission and Objectives

Standard:

1.2.1 *The mission statement and objectives of the faculty of medicine are defined by its principal stakeholders and other interested parties.*

The mission statement was approved by the Faculty Body. The faculty Mission and Statement are approved and supported by the Governance of the University Bern. The Rector expressed the appreciation of the University Bern for the current strategy of the Medical Faculty.

Conclusion: standard 1.2.1 fulfilled

3.1.3 Sub-area: Academic autonomy

Standard:

- 1.3.1 *The faculty of medicine has a policy within which it has freedom to design the curriculum and allocate the resources necessary for its implementation.*

The curriculum is designed within the legal framework of MedBG, of the Swiss Catalogue of Learning Objectives for Dentistry and the Bologna system. Guidelines of the Swiss commission of the four dental centres of the universities of Basel, Bern, Geneva and Zurich are respected in the curriculum design. In that sense the autonomy of the faculty is restricted, just like in all four dental schools in Switzerland. Within this given general framework the Faculty is free to design its curriculum in form and content. The most important committee, the Committee for Education, has designed a specific Bernese dental curriculum that is supported by the important stakeholders, professors and teachers in the faculty and that is approved by the University management.

The faculty has the autonomy to assign the majority of the resources for research and education, provided by the University. On top of the annual structural budget the Faculty receives a budget of 2.1 million CHF for investment in research and educational developments. The total budget is a combined budget for research and education. The Faculty has the autonomy to allocate these resources. For the dental school, there exists a contract between the University of Bern Zahnmedizinische Kliniken (ZMK) and the university concerning the allocation of profits from the Zahnmedizinischen Kliniken. According to information provided during the visit, the Dental School has sufficient autonomy within this contract to allocate the resources.

Conclusion: standard 1.3.1 fulfilled

3.1.4 Sub-area: Educational outcome

Standards:

- 1.4.1 *Based on the Swiss Catalogue of Learning Objectives for Training in Dental Medicine and the MedBG, the faculty of medicine defines the competencies to be achieved by students at the completion of their studies, necessary for their subsequent training and their future roles in the health care system.*

The study programmes are in agreement with the Swiss Catalogue (SCLO) and MedBG, and with the catalogue of learning objectives set up by the four dental centres of the universities of Basel, Bern, Geneva and Zurich. Thereby the Faculty has defined the competencies of dental expert, communicator, collaborator, manager, health advocate, scholar and professional that students have to achieve at the end of their masters training.

1.4.2 *Information concerning performance assessment and other data on the competence of the graduates is used for the further development of the educational programme.*

Assessment of the performance of students, including the results of the students at the Federal Exam, feedback of students and teachers on tutorials, lectures and courses are analysed by the Committee for Education (Ausschuss für Lehre). These data are used for the update of the curriculum and in the design of the curriculum for the next academic year.

Conclusions: standard 1.4.1 fulfilled

standard 1.4.2 fulfilled

Overall evaluation of area 1: Mission and Objectives

All standards of the sub-areas in area 1 are fulfilled.

Conclusion: standard area 1 fulfilled

3.2. Area 2: Study programme

This area was specifically addressed in the sessions with the Committee for Education, with student representatives, professors and teaching staff.

3.2.1 Sub-area: Curriculum models and instructional methods

Standards:

2.1.1 *The faculty of medicine defines the curriculum models and instructional methods.*

During the first two years of the curriculum, medicine and dentistry are taught in parallel. The bachelor programme is taught according to a hybrid model of Problem Based Learning (PBL). The methodological and educational principles of PBL are applied in case based tutorials, clinical skills training in small groups, practical courses and electives in small groups and in the interactive learning environment of the learning centres. It is a hybrid model of PBL because the Faculty has made the choice to combine student centred small group learning with a complementary program of classical lectures. Doing so, the ratio between self-study and 'contact hours' (lectures, PBL-tutorials, practicals, courses) is about 50:50, typical for a hybrid PBL curriculum.

The master programme is a discipline based and practice oriented spiral curriculum. The combination of patient contacts at the bedside with discipline based clinical lectures form the backbone of the master curriculum. The programme aims at increasing complexity of learning objectives and increasing self-responsibility of the students in the spiral of the master curriculum. The dental patient treatment courses of the different dental disciplines are taught as one integrated course over the two last years of the curriculum.

The educational methods and the educational environment of the programmes are very well guided and supported by the Institute of Medical Education (IML) of the Faculty.

2.1.2 *The study programme and instructional methods ensure that the students have responsibility for their own learning processes and are prepared for lifelong, self-directed learning.*

In PBL-tutorials students are guided by tutors to take self-responsibility for active participation in tutor group learning as well as for self-directed study. Summative assessment and electronic self-assessment methods are available to support self-responsibility. The interactive educational environment, access to electronic libraries and interactive audiovisual learning programs enhance self-directed learning of the students and prepare for lifelong learning.

In the master phase of the programme students can develop self-responsibility under structured supervision in the clinic, according to the Dublin descriptors for the master. During the last two years of the curriculum the dental students participate in an integrative patient treatment course, in which case oriented learning is practiced supporting the self-responsibility of the students.

Conclusions: standard 2.1.1 fulfilled
 standard 2.1.2 fulfilled

3.2.2 Sub-area: Structure, Composition and duration of the study programme

Standards:

2.2.1 *The faculty of medicine describes and defines the contents, extent, and sequencing of the study programme elements, including the balance between core and optional content.*

The content of the bachelor programme is clearly and extensively defined in the “Studienplan für die Bachelorstudiengänge Humanmedizin und Zahnmedizin” with appendices.

The bachelor programme is a 3-year programme with 180 credit points (ECTS). Year 1 and 2 are shared by medicine and dentistry. The programme for medicine and dentistry in year 1 and 2 is almost identical.

Year 1 of the bachelor is focussing on biological systems. The basic biomedical sciences are taught in this year.

Year 2 of the bachelor covers the learning of structures and functions of the healthy human body.

Year 3 of the bachelor dentistry covers the basic education and the phantomhead training in the basic dental disciplines (Oral Surgery, Periodontology, Fixed/Removable Prosthetics, Orthodontics and Conservative Dentistry including Endodontics, Preventive Dentistry, Operative Dentistry and Embryology/Histology/Anatomy). Furthermore, Microbiology, General Pathology, General Surgery and Internal Medicine/Pathophysiology for dentists are included into the curriculum.

The bachelor programme is organised in thematic modules in combination with longitudinal learning-lines. These longitudinal learning-lines determine the vertical integration in the programme. Examples of these vertical integrative learning lines are: scientific methodology (statistics, critical appraisal of literature, epidemiology and principles of evidence-based medicine/dentistry), behavioural and social sciences, complementary medicine and medical ethics.

The bachelor programme is largely designed as core program for all students; flexibility of the programme is only available in the selection of research electives for bachelor students.

The master programme is defined in the “Studienplan Masterstudiengang” with a detailed and clear definition of learning goals in annexes 4 and 5.

The master programme is schematically as follows:

- The core of the master programme is the integrated course of dental patient treatment (“Synopsis”) for two years; i.e. the 4th and the 5th year of the curriculum. Within this course, all basic dental treatments are performed in a patient-centred way. After appropriate diagnosis and treatment planning the actual treatment normally starts with preventive measures and basic periodontal treatment. This is then followed by surgical or restorative therapy including endodontics, if required. Special treatment modalities are provided for children (Pedodontics). The courses are accompanied by lectures and seminars.
- The students are also made familiar with Dental Surgery including oral medicine.
- The students have also clinical and theoretical courses in Orthodontics.
- In year 4, the students are also made familiar with radiology, dermatology psychiatry/psychology and pathohistology
- In year 5 lectures/courses on pedodontics, radiooncology, gerodontology, traumatology, ethics, economics, forensic dentistry, pharmacology and special pathology are further to those of year 4 included.
- master thesis 8 weeks.

2.2.2 *The study programme is based on the goals of the Swiss Catalogue of Learning Objectives and the MedBG.*

The study programme is based on the goals of the SCOL and the MedBG. The Faculty develops a curriculum databank for the master, to monitor the inclusion of all general and clinical learning goals of SCOL. This is done at random for the bachelor program. The study programme in the master period is also based on professional interfaculty discussions and educational guidelines of the different disciplines in Switzerland.

2.2.3 *Basic sciences and clinical sciences are integrated in the study programme as well as the interface with complementary therapies.*

Especially in year 1 and 2 of the bachelor emphasis is put on the basic sciences. In this period but also in the subsequent study years there is longitudinal integration of basic sciences in the curriculum. Members of the departments of basic sciences are active teachers. Master thesis are regularly prepared and supervised in the laboratory of a basic science discipline.

Clinical sciences are integrated in the programme especially in year 3 of the bachelor and in the master. Clinical decision making is part of the longitudinal learning line.

Aspects of complementary medicine, especially methods for pain therapy (facial pain, TMJ-disorders, etc) are taught in lectures and small group practicals in year 5 of the programme.

Conclusions: standard 2.2.1 fulfilled

standard 2.2.2 fulfilled

standard 2.2.3 fulfilled

3.2.3 Sub-area: Study programme management

Standards:

2.3.1 *A curriculum committee has the responsibility and competence for the planning and implementation of the study programme.*

The Committee for Education (Ausschuss für Lehre) is responsible for the planning and organisation of the curriculum. This committee has subcommittees for the bachelor medicine, the master medicine and the dental medicine programme. Leading Faculty members, teachers, members of IML and students are in this committee, chaired by the Vice-Dean for education. Additionally the faculty has installed Study Management for the daily implementation of the bachelor and master medicine. The Committee for Education is respected as the central organ for education and teaching in the Faculty.

2.3.2 *The curriculum committee has appropriate resources for the choice and implementation of appropriate teaching and learning methods, evaluation of students, evaluation of programme, and innovations in the study programme. The administration, academic staff, students, and other stakeholders are represented in the curriculum committee.*

The resources for the implementation of teaching and learning methods are allocated by the Faculty Management with a final responsibility of the Dean. This allocation is done in cooperation with the Committee for Education. Innovations in education are prepared by the Committee for Education and are submitted to the formal voting by the faculty members via the Faculty management.

Conclusions: standard 2.3.1 fulfilled

standard 2.3.2 fulfilled

3.2.4. Sub-area: Scientific methods

Standard:

2.4.1 *The faculty of medicine teaches the principles of scientific methods and evidence-based medicine, including analytical and critical thinking, throughout the entire study programme.*

The scientific methods of evidence-based medicine are taught in a longitudinal programme under the auspices of the department of Social and Preventive medicine. Biostatistics, clinical epidemiology, critical appraisal of literature, principles of research and trials are covered in lectures, tutorials and courses of this vertical integrative learning line in year 1-3 of the bachelor.

In the master curriculum every student writes a master thesis. Reviews of the literature, clinical studies and laboratory experiments are selected by the students as topic for the thesis. After evaluation by a mentor the thesis is presented orally in the department concerned. Detailed guidelines for the master thesis are available electronically.

Students are trained in presentation skills during the tutorials, during clinical presentations and bedside teaching at the ward and by presenting the master thesis.

Conclusions: standard 2.4.1 fulfilled

3.2.5 Sub-area: Basic biomedical sciences

Standards:

2.5.1 *The faculty of medicine identifies the contributions of the basic biomedical sciences and integrates them into the study programme.*

Basic biomedical sciences are integrated in the bachelor programme. Particularly in year 1 of the bachelor the emphasis is put on the basic biomedical sciences. The spectrum of biomedical sciences needed to obtain and understand the fundamental knowledge as basis of the clinical science is taught in the curriculum. The active participation of professors and academic staff of departments of biomedical sciences ensures the contribution of biomedical science in the curriculum.

2.5.2 *The contributions of biomedical sciences are adapted to scientific, technological, and clinical developments, as well as to the health needs of society.*

The close relation of research and education in the Faculty is the best warranty for the adaptation of the curriculum to the advances and developments in biomedical and clinical sciences.

Conclusions: standard 2.5.1 fulfilled

standard 2.5.2 fulfilled

3.2.6 Sub-area: Behavioural and social sciences, medical ethics

Standards:

2.6.1 *The faculty of medicine identifies the contributions of behavioural and social sciences, medical ethics, educational sciences, and the legal and economic basis of health care that enable*

effective communication, clinical decision-making, and ethical practices. This is integrated into the study programme.

Behavioural and social sciences are taught in the years 1-5 of the curriculum in lectures, tutorial, electives, case based discussions, seminars and practical clinical courses. Aspects of public health, socio-economic, demographic and cultural determinants of health and disease are taught in the learning line social and preventive medicine. Medical sociology and psychology are taught in year 1-2 of the bachelor integrated in the thematic modules of the curriculum. Teaching of the psychosocial aspects in dentistry are taught in the years 4 and 5 in lectures and during the practical clinical treatment courses. Students are trained in communication with patients during the practical clinical treatment courses (years 4 and 5).

Medical ethics are introduced in a one-week block in year 1. During the year 5 medical ethics and legal aspects of medicine/dentistry are taught and discussed in lectures, seminars.

2.6.2 *The contributions of behavioural and social sciences, medical ethics and humanities are adapted to scientific developments in dental medicine, to changing demographic and cultural contexts, and to the health needs of society.*

The learning items covered in the programmes of behavioural, social sciences, in medical ethics are directed at the modern developments in the patient-doctor relation and actual ethical and cultural issues in daily practice.

Conclusions: standard 2.6.1 fulfilled

standard 2.6.2 fulfilled

3.2.7 Sub-area: Clinical knowledge and skills

Standard:

2.7.1 *The faculty of medicine assures that the students have patient contact appropriate to their level of education and have acquired sufficient clinical knowledge and skills, so that after graduation they can assume appropriate clinical responsibility.*

The frequent and structured patient contacts in all phases of the programme are typical for this curriculum, and considered as a strong asset by the students and the stakeholders of the faculty.

After an only brief exposure of the dental student to their later professional environment at the very beginning of the dental education, students especially in year 4 and 5 have intensive patients contacts during the practical clinical treatment courses. These courses are taught as integrated courses ("Synopsis") including all basic dental disciplines. This can be regarded as a major progress in dental education, because it reflects the same situation, in which the student after graduation has to function.

Furthermore, a number of dental practitioners are intensively involved into dental education thus providing direct information from the dental practice to the students. The expert panel considers this educational concept as best-practice.

In years 3, 4 and 5 the students are trained in technical and communicational clinical skills in small group courses. The Clinical Skills Training is supervised by experienced clinicians.

The teaching programme in clinical skills shows a spiral design in the increasing complexity of the clinical problems and in the increasing self-responsibility of the students.

Conclusion: standard 2.7 fulfilled

Recommendation 2: The exposure of the dental students to their later profession environment was regarded to take place too late in the curriculum (4th year). It should be considered to include some field course (in analogy to the medical education) during the first year of the educational programme

3.2.8 Sub-area: Linkage with dental practice and the health care system

Standards:

2.8.1 *An operational link between the study programme, postgraduate medical education, and the independent professional practice of medicine is assured.*

The Vice-Deans for clinical medicine and for postgraduate education, the Director of education and research of the University hospital, heads of clinical departments including the dental school (University of Bern Zahnmedizinische Kliniken (ZMK) and GP representatives are members of the Committee for education.

The Dean is involved in regular interfaculty meetings about the educational programmes.

At the professional level heads of clinical departments take part in national meetings regarding the guidelines for educational programmes in the different clinical disciplines. Furthermore, a defined number of experienced dental practitioners are involved into the actual teaching as well as in the curriculum planning.

2.8.2 *The curriculum committee uses information from the professional field, the health care system, and society to improve the study programme.*

The aforementioned members of the Committee for Education ensure the linkage to the health care system. Their feedback about the regional, national and global context of medical practice is used in the annual curriculum planning.

Conclusions: standard 2.8.1 fulfilled

standard 2.8.2 fulfilled

Overall Evaluation Area 2: Study Programme

The expert panel concluded that the quality standards of all sub-areas are fulfilled. The study programme has a logical design, with horizontal and vertical integration of the modules, and based on a sound educational model.

The involvement of a defined number of experienced dental practitioners into the teaching programme is evaluated as best practice.

Conclusion: standard area 2 fulfilled

3.3. Area 3: Students

3.3.1 Sub-area: Admission policy and selection process

Standards:

3.1.1 *The governing body and the faculty of medicine have formulated admission conditions that clearly explain the student selection process.*

The admission to the dental study is restricted to 35 students per year. Students have to pass an aptitude test and are allocated to the university by the CRUS.

During the discussion with dental staff members and dental students it became evident that the same aptitude test was performed for medical and dental students and this test was mainly considered to be a general comprehension test. As it does not specifically reflect the additional special skills needed for dentistry it was suggested that the suitability of this test for dental students should be scrutinized.

The faculty has an admission officer responsible in all matters relating to students' admission in medicine and dentistry to the 2nd year and beyond.

3.1.2 *Gender equality is guaranteed.*

The faculty has a policy to guarantee equal chances for women and men in the Faculty. The Equal Opportunities Committee of the Medical Faculty offers consultations relating to equal opportunities for students and staff. The Committee provides an annual report and informs the Dean with respect to gender equality.

Conclusions: standard 3.1.1 fulfilled

standard 3.1.2 fulfilled

Recommendation 3: As the admission test does not specifically reflect additional special skills needed for dentistry, suitability of this test for dental students should be scrutinized.

3.3.2 Sub-area: Number of students

Standard:

3.2.1 *In all phases of the study programme, the number of students is defined and in accordance with the capacity of the faculty of medicine.*

The number of students for dental medicine was set to 35 based on the available clinical facilities and the teaching staff. The number was considered to be appropriate. However, the number of patients needed for clinical education especially in the 2 years practical clinical treatment course and especially in the area of prosthetic dentistry was close to the limit and it was proposed to install a system by which costs for patients requiring prosthetic treatment could be decreased.

Conclusion: standard 3.2 fulfilled

Comments: In several interviews there was some concern about the number of patients available for the practical clinical treatment courses, especially in the area of prosthetic dentistry. It was suggested that a system should be installed by which costs for patients requiring prosthetic treatment could be decreased.

3.3.3 Sub-area: Student support and counselling

Standards:

3.3.1 *The medical faculty offers support and counselling services for the students.*

The faculty has a Curriculum Coordination and Students' Office for support and counselling of students. According to the students this office is functioning very well and highly supportive for the students.

The Medical Faculty students' Council offers low-semester students counselling by higher-semester students.

Students with personal problems can make use of counselling offered at the Psychiatric University policlinic.

3.3.2 *The counselling programme is based on monitoring the learning progress of the students and takes their social and personal needs into account.*

Counselling is offered in study management, matters of leave and study interruption, absences due to illness or pregnancy, selection of internships, exchange programmes etc.

3.3.3 *Students have access to a gender equality commission.*

The Equal Opportunities Committee offers the "Sprechstunde für Medizinstudentinnen".

Conclusions: standard 3.3.1 fulfilled

standard 3.3.2 fulfilled

standard 3.3.3 fulfilled

3.3.4 Sub-area: Student representation

Standards:

3.4.1 *The medical faculty has a policy on the representation and appropriate participation of the students in the design, implementation, and evaluation of the study programme, as well as in other matters relevant to the students.*

Students are represented in the Faculty Body with voting rights. Students are represented in all important committees of the faculty with exception of the Faculty Management.

Students participate in ad hoc commissions for the selection of professors. Students evaluate the teaching skills in a special designed teaching session presented by the candidates.

3.4.2 *Student organisations are promoted.*

The students are organised in the Medical Students 'Council.

The students' influence on the design of the Faculty and the curriculum is theoretically very well regulated. In practice it is however difficult to find motivated students to participate in the gremia of the Faculty. In fact there is no representation, because elections are superfluous by lack of sufficient candidates.

Conclusions: standard 3.4.1 fulfilled

standard 3.4.2 fulfilled

standard 3.4.3 fulfilled

Overall evaluation area 3 Students: standard area 3 fulfilled

3.4. Area 4: Assessment of students

3.4.1 Sub-area: Assessment methods

Standards:

4.1.1 *The faculty of medicine defines and communicates the methods and criteria for the assessment of students.*

Assessment methods and criteria of assessments for the bachelor are defined in the "Reglement über das Studium und die Leistungskontrollen" and in "Studienplan Bachelor". In the assessment the faculty uses a mix of summative and formative assessment methods, with emphasis on formative testing. A variety of tests is used, written multiple choice questions, structured oral practical exams, tutorial feedback, and structured practical exams (OSCE).

Recently the assessment methods in the clinical rotations have been updated. Work based assessment tool such as Mini clinical evaluation exercise (Mini-Cex) and direct observation

of procedural skills (DOPS) are used and evaluated. Supervising clinicians are trained to use these instruments properly.

Assessment in the master includes written MC, OSCE and the grading of the master thesis.

4.1.2 *The reliability and validity of the assessment methods are documented and evaluated and new assessment methods developed.*

The IML has extensive experience in the evaluation of the quality of tests. The statistical methods to evaluation reliability, generalizability and selective power of tests are used according to international standards.

Conclusions: standard 4.1.1 fulfilled

standard 4.1.2 fulfilled

3.4.2 Sub-area: Relationship between assessment and learning

Standards:

4.2.1 *Assessment principles, methods and practices correspond to teaching objectives and promote learning.*

The variety of test methods and the combination of formative and summative evaluation are based on the learning principles of Millers pyramid, and match the learning objectives of the Faculty. In spite of these principles, it appeared in student interviews and some interviews with teachers that learning is directed towards passing exams.

Interviewed students were not aware of any assessment of the PBL tutorials, and therefore had some doubts about the value of PBL tutorials.

The appreciation and motivation for PBL is a matter of concern for the Faculty. The Faculty Management, the Committee for education and IML are convinced of the additional values of PBL programme in the Faculty. However in many interviews teachers, students and intermediate staff members expressed their doubts about the efficiency and feasibility of PBL. The amount of PBL tutorials was mentioned as a (too) heavy educational burden for the teaching staff. The expert panel encourages the Medical Faculty to further discuss the apparent problems of their PBL efforts and to draw consequences. Faculty management and IML have to reconsider some aspects of PBL, especially the relationship between assessment and PBL. Faculty management and IML should increase the information and explanation regarding the PBL learning system in order to raise the motivation of students and staff members for active PBL participation.

4.2.2 *The number and type of examinations encourage integrated and interdisciplinary learning.*

The number and variety of examinations encourage integrated learning. The principle of “good assessment drives learning” is well applied in the Faculty. The organization of integrated dental clinical treatment courses is regarded to be Best Practice.

Conclusions: standard 4.2.1 fulfilled

standard 4.2.2 fulfilled

Overall evaluation area 4 assessment of students

The Faculty and IML have elaborated a logic and sound system of assessment based on proven educational principles.

Conclusion: standard area 4 fulfilled

Recommendation 4:

- The faculty should pay more attention to the assessment of the PBL tutorials.
- More information and explanation of the PBL in order to motivate students and staff is needed
- The Faculty could reconsider the balance in the hybrid PBL system in close cooperation with the teachers.

3.5. Area 5: Academic staff/faculty

3.5.1 Sub-area: Recruitment policy

Standards:

5.1.1 *The faculty of medicine has a staff recruitment policy, which defines the academic staff required for the adequate implementation of the programme. It describes the type and composition of the academic personnel, the balance between dental and non-dental staff, as well as between full and part-time employees. Responsibilities are clearly defined and periodically examined.*

The procedure and the criteria for the appointment of Full and Associate Professors are clearly defined. According to Faculty regulations Professors are appointed after a selection and on the advice of a nomination committee. Students and staff members are represented in these committees.

Heads of departments are responsible for the recruitment and selection of staff for research and education. There are no specifications for this selection. It is also the responsibility of Heads of the Departments to monitor the balance between research and education in the staff at unit level.

5.1.2 *The faculty of medicine has formulated staff selection criteria, which take into account performance in science, teaching and clinical activities, as well as the demands of the mission statement of the institution, economic considerations, and further issues.*

With the exception of professorships, the selection of staff is decentrally done at department or unit level. In interviews with the management of the Faculty, the heads of Departments and Staff members it became obvious that this system of staff selection worked well in

practice. Maintaining the balance between education and research is primarily important for the department, and evaluated in the annual performance assessment of departments.

5.1.3 *The recruitment policy for academic, administrative, and technical personnel is published.*

The recruitment policy is part of the general recruitment policy of the University of Bern.

Conclusions: standard 5.1.1. partially fulfilled

standard 5.1.2 partially fulfilled

standard 5.1.3 fulfilled

Subarea 5.1 partially fulfilled

Recommendation 5: The experts recommend to strengthen the recruitment policy of the Faculty by the formulation of a manpower plan with description of the type and composition of the academic personnel and to formulate and publish staff selection criteria.

3.5.2 Sub-area: Staff policy and development

Standards:

5.2.1 *With its staff policy, the faculty of medicine strives for a balance in teaching, research, and service functions, and ensures recognition of meritorious academic activities with appropriate emphasis on both, research attainment and teaching qualifications.*

Teaching skills are recognized as an important academic quality. The Faculty enhances teaching qualities of the staff by offering basic and advanced training in education and didactics. A strong tradition is settled in the 'Master of Medical Education' (MME) programme offered in the Faculty by the IML and international experts. Approximately 20 of the Faculty staff members are graduates from MME.

5.2.2 *The staff policy includes training, development, and assessment of the teaching staff. It considers teacher-student ratios appropriate to the various components of the study programme, and assures that teaching staff is represented on relevant committees and bodies.*

The number of teachers in the faculty is sufficient until now. It is the impression of the experts that teachers are rewarded and respected in the Faculty. Teachers are represented in the relevant committees of the Faculty.

It is important for the Faculty that many professors are actively involved in teaching and training throughout all phases of the curriculum.

5.2.3 *The staff has access to a gender equality commission.*

The Equal Opportunity Committee offers counselling and advice in the matters of equal opportunities.

5.2.4 *The faculty of medicine supports a long-term promotion of young academic staff.*

The faculty supports the “Habilitation” of young talented staff members, not only in research but also in the newly created track “Habilitation Medical Teaching”.

The faculty has recently started the project ‘Faculty Development’ with a stepwise learning programme in medical teaching for assistant and senior dentists who are members of the teaching staff.

5.2.5 *The staff has access to continuing education, career development opportunities, and appropriate counselling.*

Annually the performance in education and research of the academic staff is reviewed in a structured form. This assessment is the basis for career planning and additional postgraduate training. Interviewed staff members confirmed that performance in education is part of the annual assessment, and that postgraduate education is supported by the Faculty.

Conclusions: standard 5.2.1 fulfilled

standard 5.2.2 fulfilled

standard 5.2.3 fulfilled

standard 5.2.4 fulfilled

standard 5.2.5 fulfilled

Overall Evaluation area 5 Academic staff/policy:

The Faculty management and the Heads of Departments have a common responsibility in maintaining the balance of the academic staff in teaching and research. The expert panel concluded on the basis of the written information and the interviews that both areas are rewarded and well balanced.

Conclusion: standard area 5 fulfilled

3.6. Area 6: Educational resources

3.6.1 Sub-area: Infrastructure

Standards:

6.1.1 *The faculty of medicine provides an appropriate infrastructure to ensure that the study programme can be adequately implemented.*

During the site visit, the experts visited the learning centres with ICT facilities for the students and the building of the University of Bern Zahnmedizinische Kliniken (ZMK). The visit of the Zahnmedizinischen Kliniken included the library, the skills labs (Phantomhead course), the technical laboratories, the clinical treatment units (operatories) used for the integrated practical clinical treatment course and the research laboratories. These facilities are located in one building. The overall evaluation of the infrastructure was positive. The infrastructure offers a learning environment in accordance with the PBL teaching and in accordance with the needs for practical clinical dental training. The fact that the research laboratories for the dental school are located in the same building as the educational units facilitates the idea to

integrate research into the dental education programme. There are sufficient learning booths, PC-workstations and wireless access facilities to the electronic library and internet. The dental radiography, however, is not yet digital and the patients' records are still paper based. In many dental practices this is not any more the case, but it is replaced by digital radiography and electronic patient record administration.

6.1.2 *The learning environment for the students is regularly adapted to developments in medical education.*

In recent years the learning facilities were regularly adapted and expanded. A new skills lab with 6 training rooms was recently built. The IML has developed several interactive programmes for e-learning.

Comments: The centralisation of all facilities in one „learning institute“ would be a further improvement of the learning environment of the students.

Conclusions: standard 6.1.1 fulfilled

standard 6.1.2 fulfilled

Recommendation 6: Digital radiography and electronic patient record administration should be introduced.

3.6.2 Sub-area: Practical clinical training resources

Standard:

6.2.1 *The faculty of medicine provides the necessary resources for adequate clinical education, including a sufficient number of patients and clinical training facilities.*

During the two years practical clinical treatment course the students have sufficient contacts with patients for clinical training. Experts have visited the skills lab (Phantomhead course) and the clinical treatments units. The evaluation of the clinical teaching facilities based on the written information, the interviews and the visits is definitely positive. As mentioned above, digital radiography and electronic patient record administration, which both are rather common in the dental practice, should be introduced.

The number of patients needed for the practical clinical treatment course is sufficient, but especially for the area of prosthetic dentistry, the number of suitable patients has decreased during recent years.

Conclusions: standard 6.2.1 fulfilled

Recommendation 7: A system should be installed, by which costs for patients for prosthetic treatment could be decreased (see also standard 3.2).

3.6.3 Sub-area: Information Technology

Standard:

6.3.1 *The faculty of medicine has a policy for the efficient use of information and communication technologies in its study programme. Teachers and students are enabled to use information and*

communication technology for selflearning, accessing information, managing patients and working in health care systems.

In teaching and research, the ICT is a strong point of the Faculty. The student portal “studmed”, offers extensive information about the faculty, the study programmes, the schedules and learning goals. There is a well-developed system of media support for self-study with a library of e-learning modules.

Students complete a short course on the use of electronic literature (Pub Med), and for 3rd year students an elective on medical informatics is offered.

Conclusion: standard 6.3.1 fulfilled

3.6.4 Sub-area: Research

Standards:

6.4.1 *The faculty of medicine has a policy describing the research facilities and areas of research priorities at the institution, as well as the relationship between research and teaching.*

It was not the assignment of the experts to evaluate the quality of the research.

Research of the Faculty in the dental field is concentrated in 6 themes: caries (histology, prevention and diagnostics), erosion, dental implants, regenerative periodontal therapy, developmental biology of the head and face and long term clinical outcome studies on reconstructive therapies. The laboratories for dental research are located in the dental school building, which facilitates the inclusion of research into the educational programme. In 2007 a total of 675 peer reviewed international papers were published by Faculty members as first or last author.

A new research building for the Department of Clinical research has been built in 2010. About 450 students and staff members are active researchers in this department.

6.4.2 *The interrelationship between research and teaching is reflected in the study programme and in the current course offerings. The students are encouraged and prepared to participate in dental research and development.*

Research electives and the master thesis reflect the intense relationship between research and the teaching programme. Researchers are active teachers in the curriculum. Students participate in research during the elective courses in the Bachelor.

Conclusions: standard 6.4.1 fulfilled

standard 6.4.2 fulfilled

3.6.5 Sub-area: Educational expertise

Standard:

6.5.1 *The faculty of medicine includes educational expertise when planning dental medical education and developing teaching, learning and assessment methods.*

The Institute for Medical Education (IML) is a strong asset of the Faculty. IML has a long tradition of expertise in medical education. IML is active in the educational committees of the Faculty. IML offers medical-didactic support for the curriculum, is involved in curriculum coordination, in development of learning media, the assessment and in teaching the teachers in the Faculty. IML offers the international Master of Medical Education.

Conclusion: standard 6.5.1 fulfilled

3.6.6 Sub-area: Cooperation

Standards:

6.6.1 *The faculty of medicine has formulated a policy for cooperation with other educational institutions and the transfer of educational credit points.*

International cooperation in the field of education and postgraduate training is organised by the IML. International experts in medical education are involved as visiting professor in the MME master programme.

6.6.2 *Regional and international exchange of academic staff and students is facilitated by the provision of appropriate resources.*

There is a limited number of students in the Erasmus exchange programme. The majority of international exchange takes place for the academic staff; i.e. after graduation.

The faculty does not intend to include non-German speaking countries in the Erasmus programme.

Conclusions: standard 6.6.1 fulfilled

standard 6.6.2 partially fulfilled

Recommendation 8: to expand the exchange programme outside the German speaking countries

Overall evaluation area 6 Educational Resources

Overall educational resources are at a high level, in accordance with new developments in teaching. The IML is a strong point of the Faculty.

Conclusion: standard area 6 fulfilled

3.7. Area 7: Programme evaluation

3.7.1 Sub-area: Study programme evaluation

Standards:

7.1.1 *The faculty of medicine has quality assurance mechanisms (i.e. evaluations) that monitor the study programme and student progress, and ensure that weaknesses are identified and addressed.*

The faculty has a Quality Assurance Unit (QAU) responsible for quality assurance in research, clinical care and education. Within the QAU a Q-core group has regular meetings concerning quality assurance in education. During all phases of the curriculum feedback of students on the curriculum is well organised. Also student performance and feedback from tutors and teachers are evaluated by the QAU. These evaluations are integrated in the measures for the annual improvement of the curriculum.

7.1.2 *Study programme evaluation includes the context of the educational process, the specific components of the study programme, and the general outcome.*

There is close cooperation between IML and Q-core for the overall evaluation of the educational process. Yearly specific modules of the bachelor programme are evaluated and discussed in the Subcommittee Bachelors' Curriculum in Dentistry.

The results of the master students in the final Federal exam are monitored by the QAU and considered as indicative for the general outcome of the curriculum.

Conclusions: standard 7.1.1 fulfilled

standard 7.1.2 fulfilled

3.7.2 Sub-area: Teacher and student feedback

Standards:

7.2.1 *Feedback from both teachers and students is systematically collected, analysed, and used to continually improve the study programme.*

The QAU has developed a system of continuous feedback from students and teachers. In the bachelor medicine and dentistry. 2-3 modules per year are evaluated by means of online questionnaires, feedback from PBL tutors is collected in weekly tutor meetings. The response rates to the questionnaires are quite high: 90-95%.

The dental educational programme of the last three years is evaluated periodically: every year one semester is evaluated by students on the basis of a questionnaire. Organisation and evaluation of this questionnaire are in the hands of the Dean's office. The results of this evaluation are presented to the single teacher (Docent, Professor), the Dean and to the Responsible Professor for education (Leiter Resort Ausbildung) of the University of Bern Zahnmedizinische Kliniken (ZMK). These evaluations are the basis for changes in the curriculum or changes in the single lectures/courses.

7.2.2 *Teachers and students are to be actively involved in planning the study programme evaluation and using its results for programme development.*

Feedback of students and teachers are analyzed by the QAU and integrated in the planning of the following year's curriculum.

A group of master students, the master coordinator and the Vice-Dean of the Masters Curriculum meet regularly during the semester to discuss the quality of the programme.

Conclusions: standard 7.2.1 fulfilled

standard 7.2.2 fulfilled

3.7.3 Sub-area: Student performance

Standard:

7.3.1 Student performance is analysed in relation to the mission, objectives, and study programme of the faculty of medicine, and brought to the attention of the curriculum committee.

Student performance, drop-out rates in the bachelor, nominal bachelor graduation, duration of study and the performance of the students at the Federal exam are monitored.

The dropout rate in the bachelor is less than 10%; the pass ratio of the students at the Federal exam is high with very satisfactory rates.

Conclusion: standard 7.3.1 fulfilled

3.7.4 Sub-area: Involvement of stakeholders

Standard:

7.4.1 The processes and outcome of study programme evaluation involve the governance and administration of the faculty of medicine, academic staff and students and take into consideration feedback from additional stakeholders.

The quality assurance and competences of the QAU are defined in the "QSE Strategie der Medizinischen Fakultät". The evaluations and activities of the QAU are reported to the Faculty Management and the Faculty staff through the website of the Faculty (unibe/content/qualitaetssicherung).

The QAU cooperates with the quality assurance office of the University, and the QAU reports regularly to the Dean.

Evaluation of the curriculum outcome is done in cooperation with external partners such as the Centre for Test Development and Diagnosis (CTD) of the University of Fribourg.

Conclusion: standard 7.4.1 fulfilled

Overall evaluation area 7 Programme Evaluation

The Quality Assurance Unit of the Faculty performs regular evaluations of the study programme, analyses the results of the evaluation and uses the results for quality assurance.

Conclusion: Standard area 7 fulfilled

3.8. Area 8: Governance and administration

3.8 Sub-area: Governance structures and functions

Standards:

8.1.1 *Governance structures of the faculty of medicine and their functions are defined, including their relationship within the university and to the university hospital.*

The Faculty has a transparent governance structure. The Faculty Body is the governing organ of the Faculty. The Faculty Board is responsible for the daily management and coordination. The Faculty Board supports the Dean in carrying out his tasks.

Specific Committees are responsible for research, education and resources. These Committees are chaired by Vice-Deans. Students are members of these Committees.

According to the Rector the cooperation with the University Management is good. The Dean has easily accessible contacts with all layers of the University Management.

A contract between the university and the University of Bern Zahnmedizinische Kliniken (ZMK) is the basis for the allocation of resources obtained from dental patient treatment and other sources. The heads of the departments of the Zahnmedizinische Kliniken jointly decide on this allocation within the limits of the contract.

8.1.2 *The faculty of medicine has a strategic plan.*

The strategy of the Faculty is defined in the "Leistungsvereinbarung Universität-Fakultät 2007-2011".

8.1.3 *The academic staff participates in decision-making processes concerning teaching and research.*

Staff members participate in the Faculty Body, and in the Committees for Research, Education and Resources.

8.1.4 Decision-making processes, competencies, and responsibilities are communicated to all participants.

The website of the Faculty offers relevant information for students and staff. Important developments and decisions in the Faculty are also communicated by the Dean in a semi-annual information report.

Conclusions: standard 8.1.1. fulfilled

standard 8.1.2 fulfilled

standard 8.1.3 fulfilled

standard 8.1.4 fulfilled

3.8.2 Sub-area: Academic leadership

Standards:

8.2.1 *The responsibilities of the academic leadership of the faculty of medicine for the study programme in dental medicine are clearly stated.*

The ultimate academic leadership rests with the Dean. Vice-Deans, heads of departments and professors of the faculty are clearly involved in academic leadership.

8.2.2 *The academic leadership is periodically assessed with regard to the fulfilment of the mission and objectives of the faculty of medicine.*

Assessment of academic leadership is formally done by the University Management.

Within the Faculty feedback on academic leadership is part of the discussions in the Faculty Body.

The bachelor programme was reformed in 2007 and after the Bologna agreement. This year the Faculty has planned a Faculty retreat to discuss the reform of the bachelor programme and the update of PBL.

The master programme has been recently reformed in 2009/2010.

It is the opinion of the expert panel that regular updates and reforms of the educational programme are performed continuously by the academic management of the Faculty in cooperation with staff and students.

Conclusions standard 8.2.1 fulfilled

standard 8.2.2 fulfilled

3.8.3 Sub-area: Administrative staff

Standard:

8.3.1 *The faculty of medicine has sufficient administrative staff. This ensures the organisational implementation of the study programme and other activities, and guarantees efficient resource management.*

After the session with senior administrative staff and based on the written information the expert panel concluded that the Faculty is well organised. The administrative staff appeared competent and devoted to the tasks in the Faculty.

Conclusion: standard 8.3.1. fulfilled

3.8.4 Sub-area: Educational budget and resource management

Standards:

8.4.1 *The faculty of medicine has clear authority und responsibility for the study programme and its financing. This includes a dedicated educational budget.*

The Faculty receives a combined budget for research and education. Further to this, there is a contract between the university and the University of Bern Zahnmedizinische Kliniken

(ZMK). The income generated by dental patient treatment and from other sources (e.g. research contracts) is (within the limits of the contract) allocated to financing the study programme. The heads of the departments are responsible for the allocation of the resources including the educational budget.

8.4.2 *The faculty of medicine has sufficient autonomy to direct resources, including the remuneration of teaching staff, in order to achieve the overall objectives of the faculty.*

The Faculty has autonomy to invest and allocate the research and education budget provided by the University directly to the Faculty and through the contract between the university and the University of Bern Zahnmedizinische Kliniken (ZMK). During the discussion with the involved educational staff this autonomy was considered to be sufficient.

8.4.3 The financial sources and all conditions linked to financing are transparent, and do not hinder the autonomy of the faculty of medicine to make decisions concerning teaching and research.

The Faculty Management allocates financial resources for research and education to the departments. Within the departments heads of the department are responsible for the allocation of resources. In the interviews with academic and administrative staff it was discussed that the allocation is mainly based on educational and scientific performance.

Conclusions: standard 8.4.1 fulfilled

standard 8.4.2 fulfilled

standard 8.4.3 fulfilled

3.8.5 Sub-area: Interactions with the health sector

Standard:

8.5.1 *The medical faculty collaborates with the health and health related sectors of society and government.*

At the level of education the Faculty has cooperation with the Bern School of Health and with the Universities of Fribourg and Basel. Furthermore, the four centres of dentistry in Switzerland (Basel, Bern, Geneva and Zurich) have close cooperation concerning the teaching programme and its constant actualization.

Based on the discussion in the session with representatives of professional and cantonal organisations the expert panel concluded that the cooperation of the Faculty with the relevant organisations in the society is well appreciated.

Conclusion: standard 8.5.1 fulfilled

Overall evaluation: Standard area 8 fulfilled

3.9. Area 9: Continuous renewal/quality assurance

Standard:

9.1.1 *As a dynamic institution, the faculty of medicine implements procedures for the periodic reviewing and updating of its structure and functions, and rectifies documented deficiencies.*

Based on the self-evaluation report, the appendices of this report and the interview sessions the expert panel concluded that the Faculty has a well organised system for quality assurance of the educational programme and for quality assurance of the structure and organisation. The feedback cycle for quality assurance functions effectively. The organisation of the Q-core group is well established in the Faculty.

Conclusion: standard 9.1.1 fulfilled

4. Compliance with legal requirements

The bachelor and master programmes in dentistry are compliant with the legal requirements of MedBG art. 24, para. 1 a and b.

5. Strengths, weaknesses, recommendations on quality improvement

It is the opinion of the expert panel that the Medical Faculty at the University of Bern offers dental training and education at a level that is compliant with the legal demands in Switzerland. The programme is structured according to the Bologna system and the Dublin Descriptors for academic training. The quality of the educational programme is in accordance with international standards for dental education. The quality criteria of the Association for Dental Education in Europe (ADEE) are met.

5.1. Strengths:

The programme has strong points and well-established strengths in the following fields:

- Curriculum:

The involvement of a defined number of experienced dental practitioners into the master part of the dental educational programme is best practice in learning in the context and development of professionalism.

The quality of clinical teaching directed at the practice of dentistry, with emphasis on practical clinical diagnostics, treatment planning and actual treatment in courses, where all dental disciplines are integrated, is a definite strength of the dental education.

Scientific methods are taught as a longitudinal learning-line directed at lifelong learning.

- Education:

Professors and staff are involved and interested in teaching and training of the students.

The Institute of Medical Education is a strong asset for the innovation and guidance of the educational programme.

The quality of the portal Studmed and the ICT support of e-learning are very good.

5.2. Weaknesses and recommendations:

A main concern of the expert panel is about the continuity of the PBL system.

It is the conviction of the experts that PBL has essential added value for the faculty. However, the present information and training of students and staff about PBL is obviously not sufficient for a general support and motivation by students and staff. Recommendations to reconsider the full application of PBL and to repair the relation between assessment and PBL tutorials have been given in this document.

A second item for improvement is the reform of the bachelor programme. The expert panel supports the plans of the Faculty to integrate the programmes of bachelor year 2 and 3 in multidisciplinary modules with a strong integration of physiology, pathophysiology and clinical science. It even could be considered to integrate items of bachelor year 1 in this reformed programme. The H-shape of the programme (biomedical science-normal physiology-clinic) could be changed towards a Z-shape with increasing integration of these fields in a spiral bachelor programme.

The third item of concern is the low level of participation of students in the gremia of the Faculty. The panel recommends to support organisation and representation of the students. Feedback of students not only on the curriculum but also on the strategy and organisation will be beneficial for the Faculty.

There are few elective courses in the bachelor programme. It would be stimulating and student-centred if students could have more possibilities to choose courses according to their interests.

The study programme in medicine should be a scientific and academic education. Science is a strong point in this curriculum but some aspects of academic education are missing. A programme of philosophy of science and medicine/dentistry, history of science, cultural aspects of science, the relationships of medicine and art will help to educate broad-minded doctors and to prepare the students optimally for their future role as academic members of the society.

6. Recommendation on accreditation

Based on the evaluation of the FOPH quality standards for accreditation, based on the information and analysis of the self-evaluation report, and based on interviews and site visits, the panel of experts recommends the accreditation of the study programmes bachelor of dental medicine and master of dental medicine at the University of Bern, without any condition.