DentEd

Site Visit

University of BRESCIA

Course of Stomatology and Prosthetic Dentistry

24 – 28 October 1998

CONTENTS

The Dental Curriculum (Sections 5 – 16)

Section 1

1.1 Introduction

The visit to Brescia was the first of the planned visits to dental schools in Europe under the auspices of the *DentEd* Thematic Network Project funded by DG XXII of the European Union and the Association for Dental Education in Europe. This visit set the protocol for subsequent school visits. The visit is intended as an opportunity for the host school first to carry out a process of self-evaluation and then discuss the outcome with a group of peers from other European countries. This provides an opportunity to gain a better understanding of the different educational approaches taken in the different regions of Europe and assist each other through pooling innovations, ideas and intellectual resources. The international visitors are not there to judge or impose their own systems or perceptions of what is or is not appropriate. However they are there to express opinions on different methods of education and identify best practices. It is hoped that this in turn will promote continuous quality assessment and development. The programme will help to understand each other's aspirations including the inevitable constraints imposed by our resources, our environment and our ability to make decisions and implement change. Behind this effective system of personal communication and exchange there is the broader aspect of *DentEd* whose aims are spelt out below.

The Association for Dental Education in Europe is a partner in this venture as well as many hundreds of dental academics in Europe who are prepared to share their innovations and to promote the fundamental principle of convergence towards higher standards in dental education and oral health. This must be achieved without attempting to impose a single educational approach or to impose a system of accreditation.

The visit to the Dental School in Brescia must be regarded as one of the most significant of all the visits in *DentEd.* This is the first of the *DentEd* visits and the protocol for future visits has been finalised in Brescia following consultation with the staff in Brescia. Also the first universities to be founded were established in the twelfth and thirteenth century in Northern Italy. The influence which Italy has had on education and particularly in the Classics is profoundly significant and it is therefore appropriate that the first of these visits in the *DentEd* Thematic Socratic Network should have been initiated in Italy.

Italy has one of the largest numbers of dental schools in the EU. It has a unique approach to dental education at undergraduate, graduate and specialist training levels, which is not well understood throughout the rest of Europe. There are great variations in the standards of education and training within Italy but these are not documented. There are many innovative practices, which are not shared with the rest of Europe.

The fact that the Dean of Brescia, Professor Pierluigi Sappelli is also the President of the Italian College of Dental Deans is of enormous significance. It might encourage other dental schools in Italy and in the rest of Europe to participate in the *DentEd* network.

It is important to state at the outset of this report that the visitors to the "Course of Stomatology and Prosthetic Dentistry" were impressed with what is being achieved in dental education and training in Brescia despite limited clinical resources and staffing. Any comments in this report should be taken in that context. These are therefore observations of a group of international peers for consideration by the host school. Although confidential to the school the authorities in Brescia have given permission to disclose the contents of the report.

This visit set the protocol for subsequent school visits. Although it is a useful example for the other DentEd visitation reports, Rapporteurs and Chairpersons are asked to use the format and headings as set out in their pre-visit documentation

Acknowledgements

First the visitors would like to express their deep sense of appreciation for the manner in which they were received, the welcome and warm hospitality they were shown. In particular they wish to express their admiration for the care taken in the preparation of the extensive documentation that was presented in a clear and open way. This made the task for the visitors so much easier and interesting.

The Head of the Course Professor Pierluigi Sappelli, ably assisted by the local contact person Dr Corrado Paganelli, are to be congratulated for the efficient manner in which they and their colleagues prepared for and enthusiastically participated in this visit.

1.2 Aims of *DentEd* are as follows:

- Establishment of a European Network in dental education
- Convergence towards higher standards
- Better understanding of each other
- Agreement on common competences in Primary Health Care
- Promotion of evidence-based teaching/treatment
- Sharing of peer-reviewed interactive programmes
- Sharing of innovations and good practices
- Creation of an electronic bulletin board for exchange of information

1.3 Visitors to Brescia

Professor Antonio Carrassi, Professor of Oral Pathology and President, Association for Dental Education in Europe

Professor Peter Gaengler, Professor of Preventive Dentistry and Dean of the Dental School, University of Witten

Dr. Bernard McCartan, Consultant in Oral Medicine and President of the Dental Council of Ireland

Professor Derry Shanley, (Chairperson), Dean of Dental School and Hospital, Trinity College Dublin and co-ordinator of *DentEd*

Ms Majella Giles, (Rapporteur and Administrator of *DentEd*)

Section 2: Facilities

In this section we consider the following **Facilities:**

2.1 Clinical Facilities
2.2 Teaching/Learning Facilities
2.3 Teaching Laboratories
2.4 Research Laboratories
2.5 Library
2.6 Planned developments

2.1 Clinical Facilities

There were 18 dental chairs available in the dental hospital for student training (20 students qualify per year). Clinics operated from 08:00 to 13:00 or 14:00 and were not generally in operation for the rest of the afternoon. Students worked in teams on the clinics, more junior students learning from senior students under staff supervision maximising the limited facilities. The Accident and Emergency Department operated on a 24-hour basis thereby providing considerable additional time for students to carry out emergency treatments. This ranged from treatment of acute pulpitis, swelling and bleeding to facial trauma and fractures.

There was an excessive reliance on simulation laboratories to supplement the students' clinical experience.

There is approval and budgetary provision for a major extension to the existing facilities bringing the total number of chairs to 56. The plans and the site for this extension were shown to the visitors and a completion date is anticipated within the next two years.

Visitors' Comments
The visitors did not consider that the existing clinical facilities were sufficient to provide the desirable level of student involvement in clinical dentistry.

Nevertheless there was a well designed timetable and this together with the 24 hour, seven day per week emergency service during which students gained considerable hands-on experience helped to compensate for limited and inadequate clinical facilities.

Despite the small number of dental chairs the acquisition of students' experience in a wide range of clinical procedures was fully documented. Records were made available to the visitors both in the dental hospital as well as in the Medical Faculty's archive. Together, these proved to the visitors that students gained an impressive though insufficient level of clinical experience in the face of seriously limited clinical access.

The visitors were shown plans for the extension of the clinics for which funds and a site had already been agreed which will increase the total number of dental clinical operating units to 45 (dental chairs).

There was heavy reliance on simulation laboratories to supplement the students' practical experience, which is described below.

2.2 Teaching/Learning Facilities

The primary facilities for learning were housed nearby in the Faculty of Medicine's main centre. Two large lecture theatres for the exclusive use of first and second year dental students whose teaching was provided by lecturers in the basic, biological and para-clinical sciences.

Three teaching laboratories (one for each clinical year) in the dental clinical building were used in an innovative way for the three final years of students. These together with the library and IT facilities are described below.

Visitors' Comments
The learning facilities available to the students were quite adequate and appropriate in size particularly taking into account plans for the extension, which included additional lecturing facilities.

2.3 Teaching Laboratories

Three multipurpose teaching laboratories (one for each year) were used in a very innovative fashion. Students were assigned to a laboratory in their third year and used this for the following three years. They bore responsibility for the cleanliness and tidiness of their place in the laboratory, which they retained for the final three years of their course. This was used for manikin heads, dental technology, periodontology as well as other learning opportunities.

Visitors' Comments
The use of these facilities was impressive and it was apparent that the students actively participated in this as well as other facets of involvement in the running and maintenance of the dental hospital.

2.4 Research Laboratories

Visitors' Comments
Although there was no activity in the research laboratories during the visit there was ample accommodation for these activities and the section on publication of research publications will confirm the level of research activity in Brescia.

2.5 Library

There are three libraries available to dental students. The Medical Library in the medical faculty is undergoing a major refurbishment at present and is due for extension although not sufficient to provide the needs of the students who use it.

Visitors' Comments

There appeared to the visitors to be several shortcomings in the library for dental students and these included the noise levels, the paucity of texts for dental students, which were generally out-of-date. A serious complication is the limited number of dental texts available in Italian and which seemed to the visitors to put Italian or at least Brescian students at a serious disadvantage because most medical and dental texts are written in English. This problem is also pertinent in research publications from Italian colleagues and a matter of concern.

2.6 Planned Developments

The plans for extension of the dental hospital are at an advanced stage and are due for completion in 1999. These will provide the institution with a total of 5,000 square metres. These developments will increase the number of clinical chairs to 45, which is urgently needed.

In addition there is expansion for an auditorium for exclusive use by the dental school. These much needed physical developments when combined with the IT developments will add considerably to the potential of this school and help compensate for the present deficiencies in their resources.

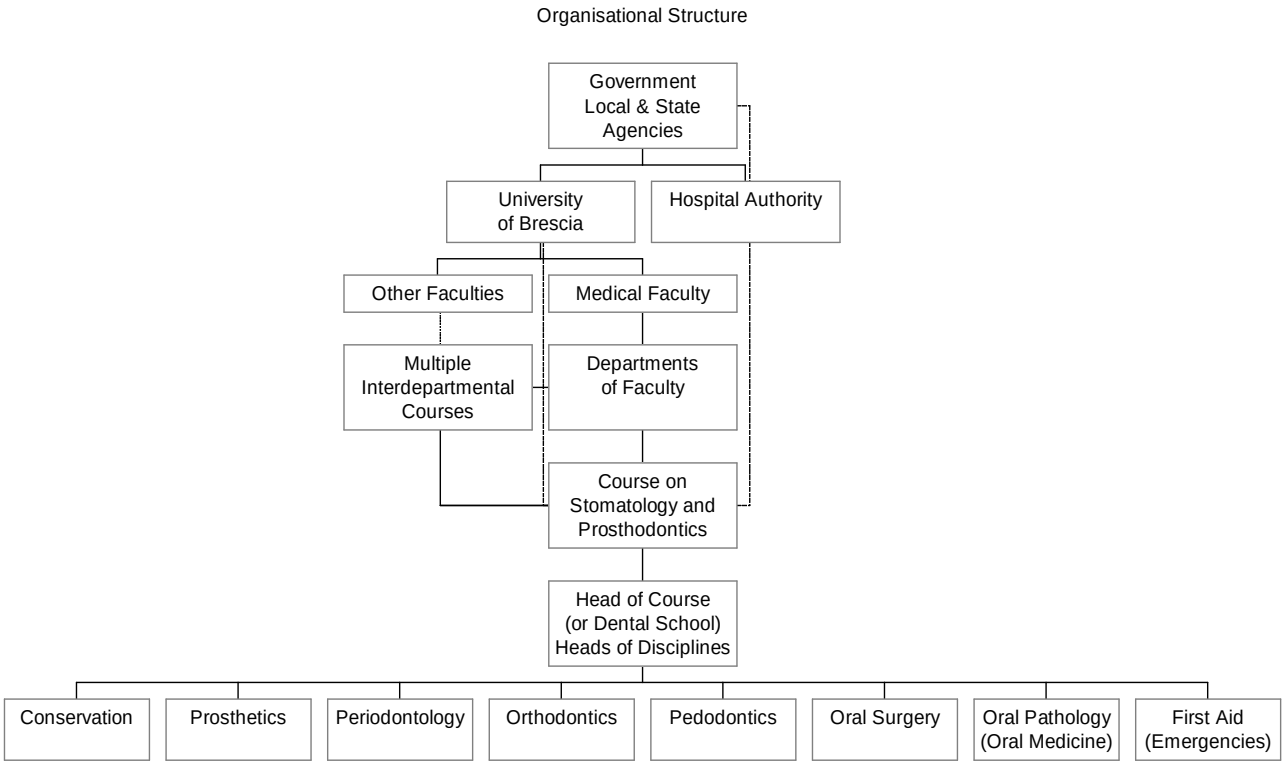
Section 3: Administration and Organisation

3.1 Clinical/Academic Organisational Structures for School and Hospital

The organisational and administrative structure of the course in stomatology and prosthetic dentistry in Brescia is complex particularly for those who are not familiar with the organisation of dental education in Italy and should not be interpreted within the confines of other national structures of university organisation. In general structures of administration and organisation in Brescia resemble most other similar stomatological institutions in Italy but there may be wide variations and it would be a mistake to interpret the organisational and administrative arrangements for one to typify the arrangements for the rest of the country.

Teaching of subjects outside the range of clinical dentistry or stomatology is dependent on course units drawn from different departments within the Faculty and these provide service teaching to students of odontology as well as Medicine in Brescia.

Organisational Structures in the University of Brescia



3.2 Information Technology

Several of the members of the dental school in Brescia were involved in advanced use of information technology. Computers had been made available to staff, often from personal resources. The entire visit had available to it modern computer facilities and an LCD projector.

Apart from the area of "anatamo-pathology" the visitors were not made aware of the use of IT in teaching, patient or student records.

The visitors were advised that each teacher will be provided with networked personal computers for their own academic use and there are plans for development of administration, photographic and radiographic storage systems.

The four classrooms and auditorium are to be connected with the general computer network for multipurpose use.

Each dental chair will have a computer able to get images from radiographic and photographic storage.

Visitors' Comments

The planned developments suggested are to be welcomed and supported. Information technology needs to be developed within the dental school and particularly in the faculty's library. The potential for the development of interactive training programmes could help to supplement the teaching programme in Brescia. This requires additional resources from the University and/or the Hospital; preferably both as they are interconnected and should be considered as part of anticipated developments.

It is recommended that some staff members such as Professor Paganelli might become actively involved with Professor Attstrom's group in Malmö as well as with the *DentEd* web group in Dublin to gain mutual benefits from greater collaboration.

Section 4: Staff in Brescia

Professors	11
Associate Professors	10
Part-time Teachers	19
Hospital Staff?	by category or title and please explain significance
Research Staff	15
Administrative Staff	5
Nurses	18
Dental Technicians	2
Photographer	1
Radiologist	1

Faculty Members in Dental School

CP - please supply subject/discipline and if possible e-mail

Professors:		
	Subject/Discipline	e-mail address
Prof. Barlati Sergio		
Prof.ssa Bianchi Rossella		
Prof. Chiesa Antonio		
Prof.ssa Cocchi Daniela		
Prof. De Ferrari Francesco		
Prof.Monarca Silvano		
Prof. Notarangelo Luidi Daniele		
Prof. Sacchetti Emilio		
Prof. Sapelli Pierluigi		
Prof.ssa Schiaffonati Luisa		
Prof. Veicsteinas Arsenio		

Associate Professors		
	Subject/Discipline	e-mail address
Prof. Abbate Sergio		
Prof. Candiani Andrea		
Prof. Cappa Stefano		
Prof. Facchetti Fabio		
Prof. Foglio Bonda Pier Luigi		
Prof. Ghielmi Salvatore		
Prof.ssa Molinari Tosatti Maria Pia		
Prof. Nicolai Piero		
Prof. Pouchè Antonio		
Prof. Savoldi Enrico		

Part-time Teachers		
	Subject/Discipline	e-mail address
Dr. Nestore Battisti		
Dr. Massimo Bellia		
Dr. Carlo Bettini		
Dr. Romolo Borgese		
Dr. Antonio Cerutti		
Dr. Emilio Contini		
Dr. Livio Cordone		
Dr. Marino Corica		
Dr.ssa Gigliola Flamminio		
Dr. Aldo Francesconi		
Dr.ssa Maria Grazia Marinone		
Dr. Roberto Maroldi		
Dr.ssa Stefania Pasini		
Dr. Alessandro Rolfi		
Prof. Mark M. Schubert		
Dr. Signorini Costantino		
Dr. Giuseppe Venturi		
Dr. Luca Visconti		

Rappresentanti dei Ricercatori		
	Subject/Discipline	e-mail address
Dr. Bresciani Roberto		
Dr. Salgarello Stefano		

Hospital Staff		
Signaroli Paolo		
Scalvini Flavia		
Puglia Francesca		
Raineri Stafania		
Duina Roberto		
Firmo Valter		
Arici Ptrizio		
Bosio Claudio		
Caldera Maurizio		
De Maso Agnese		
Favalli Giorgio		
Gatta Daniela		
Ghidoni Loredana		
Mazza Luciana		
Pedretti Milena		
Robagotti Marco		
Scandale Claudio		
Scassola Claudio		
Sciotta Giovanni		
Taglietti Bruno		
Zipponi Isabella		
Massardi Marcello		
Preosti Lidia		
Buccinotti Vincenzo		
Bolpagni Federica		

4.1 Staff (Strengths):

The staff in Brescia are dedicated and particularly those with responsibility for specific units. They are strongly and firmly lead by an able and far-sighted Dean who has considerable insight into the affairs of state and university thereby ensuring maximum benefits for the staff and students.

Strong leadership of the Dean seemed to have been significant in curriculum development, structure of departments and development of clinical centres (e.g. Dental Traumatology) based on treatment needs, education and strengths of individuals. Despite limited resources there is the potential for staff development programmes in all departments with flexibility and autonomous decisions supported by the Dean. The strength of one individual may be good at a particular time but inevitably that person will be replaced in the future and without other professors the transition may be more difficult when the present Dean retires.

4.2 Staff (Weaknesses)

There are well-founded concerns in respect of staff conditions and the amount of work that they must do both within and outside the institution. There are serious disadvantages to them which may not sustain a highly motivated staff and could eventually lead to resignations or disaffected staff.

The salary scales seem to be lower than the rest of Europe and net salary scales (tax free and without further deductions) - per annum - are as follows:

Professors 30,000 euros
Associate Professor 20,000 euros
Confirmed lecturer 23,000 euros
Researcher 12,000 euros
Part-time teacher 2,500 euros

Visitors' Comments and Recommendations

There must be a realistic opportunity for intra-mural practice divorced from the present bureaucracy, although this is no substitute for proper salaries**.** Alternative income from private practice (which is currently essential) has to be a source of concern because it dissipates staff energies. It is undesirable to have teaching staff work without a salary as is the case for some. It is also unreasonable to provide those who work 38 hours per week with a salary appropriate for a 28-hour week.

In addition considerable frustrations are experienced by staff who are expected to fulfil the priorities of completing many treatments for hospital patients whilst at the same time attempting to teach students to carry out clinical work under their supervision on behalf of the university.

If the present cohort of talented and highly motivated junior staff is to be retained there is a need to bring their conditions of employment and promotional prospects into line with other EU schools. Also they had an understandable perception that junior staff carry an unfair burden of clinical supervision compared to senior staff, a matter which needs to be addressed and particularly in respect of those activities which are not in their future or promotional interests.

There is a strong case to expand the staffing at all levels including Professorial, Associate Professor, Senior Researcher, Administrative and Secretarial as a matter of urgency. There is a need to resolve the problem that staff at this level can earn substantial salaries in the private sector and it is simply inevitable that unless something is done the dental school will not retain its most talented staff and its potential to attract staff from new graduates. There will be a lower status for those who give their careers to academic dentistry if the present disparity continues.

Staff should be primarily engaged in research, clinical teaching and training. The lack of secretarial staff means that highly trained dental staff is engaged in administrative tasks for which they have neither the training, skill nor the time to do all of these chores. The school in the meantime will suffer.

The Curriculum
Sections 5 – 16 inclusive

Section 5: Basic and Biological Sciences

It was not possible to meet the Professors of some of the pre-clinical subjects due to their prior commitments. The Professor of Biochemistry had only very recently taken up his appointment it was thought by the local organisers that it would be unfair for him to discuss the various matters concerning his programme.

5.1 Physics

Hours: 60 hours

Aim: To provide an understanding of the laws of physics appropriate for dental students

Main Objectives:
To supplement the students' knowledge of physics (gained in high school).
To provide the scientific basis in Physics for an understanding of:
- Physiology
- Ionizing radiation
- Conduction
- Materials Science
- Polymerisation and Resins

Assessment Methods:
Written examinations which include problem solving questions

General explanation and description of Course:
Course delivered in the first semester mainly by lectures and seminars with some laboratory classes

Strengths:
- Clearly defined programme with enthusiastic teacher who is himself a polymer physicist
- Small group teaching

Weaknesses:
- Professor felt that student rely too heavily on memorising rather than understanding
- Department undertakes its main research activity outside the university
- Lacks integration with clinical teachers

***Visitors' Comments*:** This course was carefully designed by an interested, enthusiastic and incisive professor who had set out to prioritise the knowledge that dental students require.

Best Practices: Prioritisation of essential information

5.2 Chemistry

Professor not available for comment

Hours: 60

Aim: Knowledge of general and inorganic chemistry propedeutical to the study of the materials utilized in dentistry. Organic chemistry introductory to biochemistry

Assessment Methods: As for Physics

5.3 Applied Biology and Genetics

Hours: 50

Aim:
To establish a biological basis for human diseases with a particular emphasis on human genetics for dental students by providing them with an understanding of the cellular and molecular mechanisms in the organisation and functioning of living organisms.

Main Objectives:
To provide a scientific and biological understanding of the following:

- The origin and evolution of the human organ
- Genetics
- The genetic code
- Reading of human caryotype and human pedigree
- Microscopic appearance of cultured human cells
- Microscopic appearance of human cancer cells
- Microscopic appearance of mitotic chromosomes
- Experimental methods

Assessment Methods:
Structured essay questions describes as “open” although this should not be interpreted as students being provided with questions beforehand or having access to library. 70% students pass on first attempt and the others must repeat until successful.

Quality Development:
Review of student performance in annual tests and assessment

Strengths:
Taught by a dedicated teacher who has given considerable thought to the particular needs of dental students.

Weaknesses:
Lacks integration with clinical teaching and especially with those disciplines concerned with the management of genetic, developmental and growth defects

Professor has difficulty with appropriate texts for her purposes and as a result has to provide extensive handouts for students. This may discourage students from seeking information for themselves.

Visitors' Comments and Recommendations:

Visitors were impressed with the professor's commitment to providing a well-structured programme and in the application of examples in genetic teaching that the students find both stimulating and relevant to their training. It was suggested that discussions should be held with clinical teachers to discuss further integration and the re-emphasis on applied genetics principles in the clinical years

Best Practices:

This tailor-made course is taught in a relatively short period with prioritisation in order to make it particularly relevant for dental students. It may be an example for others to follow.

Section 6: Pre-Clinical Sciences

6.1 Anatamo-Pathology

(A combination of General, Head and Neck and Oral but not Dental Pathology)

Hours: 60

Aim: To provide students with an adequate basic knowledge of histopathological and general pathological principles of Head and Neck Pathology and relevant systemic pathology

Main Objectives:

Students are required to know:

- The detailed pathological processes of most oral diseases
- In less detail relevant head and neck conditions
- Basic laboratory methods
- The correlation between the pathological, clinical and radiological features of oral diseases
- When, where and how to biopsy
- How to transport the specimen to a laboratory
- How to interpret a pathology report

Assessment Methods:

Oral Examination in year 3

Quality Development:

- Peer exchange and revision
- International review of cases
- Standards influenced by other disciplines collaborating with this department such as dermatology, haematology and immunology

General explanation and description of Course:

This course is delivered in a series of lectures and seminars in year 3
(20 hours systemic and 40 hours oral pathology)
There is a CCTV programme on histopathology combined with clinical features

Visitors' Comments and Recommendations:

Very high quality course delivered by a general pathologist of international reputation and with a particular interest and enthusiasm for oral pathology promoting collaboration with other colleagues to considerable benefit of the institution. The visitors would recommend integration of general pathology with this excellent programme.

Innovations and Best Practices:

- Use of clinical photographs to accompany pathology requests
- Handouts of a very high quality with photomicrographs
- Collaboration with other courses including internal medicine, oral medicine, and otorhinolarygology.
- Strong collaborative research with clinical academics in dental school

Section 7: Para-Clinical Sciences

7.1 Pharmacology

Hours: 60

Aim: To provide dental students with knowledge of the correct use of drugs in clinical dental practice and of drugs used in medical treatment which might interfere with dental treatment

Main Objectives:
At the end of this course the students must be able to:
- Prescribe drugs commonly used in dentistry
- Inform patients of the rationale of pharmacological therapy, side effects and potential toxicity and the need to comply with prescriptions
- Understand the inappropriate use of drugs including abuse and dependency
- It was stated that it was also the professor's objective to provide dental students with the same level of understanding in pharmacology as their medical counterparts.

Assessment Methods:
Oral, MCQs (at the end of each section of the course) and written examinations as well as self-assessment methods. Students have a choice to decide between oral or written tests.

Quality Development:
Not discussed

General explanation and description of Course:
This course is taught primarily on the basis of lectures and seminars by the Professor of this subject in years two and three. There is some therapeutics (clinical pharmacology) in year four.

Strengths:
- Integration with clinical teaching in 2nd 3rd and 4th years
- Collaboration with other courses
- Collaborative research with clinical teachers

Visitors' Comments:
The visitors were impressed with the broad approach taken by the professor of the subject who clearly set out to provide an appropriate programme of training specifically for dental students. It was of a high quality with good collaboration.

7.2 Microbiology

The Professor of Microbiology was unable to meet the visitors. The visitors subsequently learned that the teaching of Medical Microbiology for dental students covers the basic knowledge of bacterial structure, classification and identification as well as the microbial metabolism and pathogenic mechanism. While bacteria responsible for diseases of oral importance (i.e. dental caries and periodontal disease) in this context are particularly emphasized, other microorganisms of medical importance are also discussed. Furthermore, some lectures deal with structure, replication and classification of viruses in order to provide introductory material to very important problems linked to AIDS, HBV - and HCV-related pathology.

7.3 General Pathology

Hours: ***figure to be provided***

Aim: To teach dental students the different pathogenic factors and mechanisms of disease processes

Main Objectives:
On completion of this course students are required to know:

- Aetiology and pathogenesis of the more common diseases
- The functional alterations of various organs and systems as a basis of the common human diseases

Assessment Methods:
Oral examination at the end of the course

Quality Development: Not discussed

General explanation and description of Course:
Non-clinical general pathologists teach the principles of pathology. Clinical pathologists known as “anatamo-pathologists” teach special clinical pathology. This course is taught in lectures and laboratory demonstration session in year 2. Students do not have practical microscope classes.

Strengths:
None were discussed

Weaknesses:
The teacher of the course believes that students have insufficient knowledge of physiology and biochemistry at the start of this course and as a consequence much of her time is given to cover information which should be taught in other disciplines. Course given in isolation from other teaching/learning. Lack of practical microscopy and histopathology experience for individual students.

Visitors' Comments and Recommendations:
The visitors found difficulty in ascertaining a clear insight into the course and were conscious of a sense of frustration on the part of the teacher responsible for the course.

Consideration might be given to integrating this course with anatamo-pathology and while not discussed at the site visit there may be the potential for adding further innovation to the laboratory activities in the dental clinical building by having available microscopic classes in these facilities.

Innovations and Best Practices:
None were discussed

Section 8: Human Diseases

8.1 General Medicine

Hours: 60

Aims:
- To provide students with knowledge of clinical methods
- To ensure students understand and recognise basic manifestations of general diseases
- To enable students to provide first-line treatment for medical emergencies

Main Objectives:
Students must be able to:
- Approach dental patients in an appropriate way
- Take appropriate medical histories from patients and relative
- Carry out a simplified physical examinations to recognise common medical diseases
- Take appropriate account of medical conditions in dental practice
- Recognise and provide first-line treatment for emergencies

Assessment Methods:
Vary from one discipline to another and are at the discretion of the constituent disciplines.

Quality Development:
None discussed

General explanation and description of Course:
This set of 6 courses includes teaching in internal medicine, neurology, infectious diseases, cardiology, psychiatry and paediatrics. This is taught by staff from these disciplines. The integrated course is delivered by means of lectures and elective sessions as well as clinical demonstrations.

Strengths:
- Dental staff involved in assessments
- Demonstrations specifically prepared for dental students separate to the medical students
- Collaboration with other courses
- Collaboration in research with clinical dental teachers
- All lecturers are senior medical academics

Visitors' Comments:
This is an interesting and successful course with good collaboration. The visitors were also impressed by the frankness of the comment that the "objectives are not always realised".

Innovations and Best Practices:
Involvement of senior staff from medical disciplines in teaching dental students

8.2. General Surgery

Hours: 50

Aim: To provide students with a knowledge and understanding of surgical principles and particularly as they relate to dental surgery

Main Objectives:

Assessment Methods:
Oral Examination

Quality Development:
Not discussed

General explanation and description of Course:
This course is provided in the third year with 30 hours in lectures and seminars and 20 hours in practical/clinical experience. Included in this course is training in suturing techniques as well as other basic surgical procedures. Otolaryngology is taught separately from this course unit.

Innovations and Best Practices:
Students learn how to behave in operating theatres and learn about cross-infection control and maintenance of sterility

Sections 9 - 15 inclusive deal with students' training and education in clinical dentistry

Section 9: Orthodontics and Child Dental Health

9.1 Orthodontics

Hours: 300 hours, includes 100 hours of lectures and 200 hours of clinical work

Aim: To introduce the student to the theoretical and practical principles of orthodontic treatment and to ensure that the student can distinguish those more simple cases which he or she can treat and those which require specialist treatment

Main Objectives:
The student must be able to:
- Describe growth and development and deviations from normal
- Diagnose and classify orthodontic conditions
- Distinguish the simple from the more difficult cases
- Carry out cephalometrics
- Treat simple cases and participate in the completion of one or two cases
- Provide orthodontic treatment on a prioritised basis (there was special emphasis on those with special needs)
- Provide preventive care for the patient undergoing orthodontic

Assessment Methods:
- Continuous assessment
- Treatments provided are logged and recorded on student file
- Oral Examinations

Quality Development:
This was not discussed

General explanation and description of Course:
There were clearly defined practical and attainable educational objectives. Three clinical chairs are devoted to the orthodontic clinic and students in the 3rd 4th and 5th year are present in the clinic. Senior students are assisted by junior students who thereby learn from their senior colleagues on the clinic. Students have approximately 200 hours on the clinic actually treating patients themselves. It is the policy of the department to treat patients with "special needs" such as post-transplant patients, medically compromised and physically challenged patients thereby providing students with a broad range of experience in the prioritisation of appropriate care for those most in need of treatment.

Strengths:
- Well structured and planned practical and appropriate course
- Prioritisation of care for those most in need
- Intelligent use of students in assisting and teaching each other under staff supervision
- Modern and well maintained dental equipment

Weaknesses:
- Insufficient clinical accommodation
- Insufficient clinical staff
- Insufficient support staff
- Too many students observing rather than practising due to limited clinical facilities
- Head of unit has too many responsibilities

Visitors' Comments and Recommendations:
The visitors were impressed with what had been accomplished in the limited number of places They were also impressed with the efficiency demonstrated on the morning of the visit to this clinic and by the levels of cleanliness and hygiene. The provision of orthodontic treatment to special needs patients was an exemplary practical expression of prioritised care.

Innovations and Best Practices:
- Students carry out and gain some competence in orthodontic treatment
- Prioritisation of care
- Use of students to supplement staff training and assisting

9.2 Child Dental Health

Hours: 140, includes 40 hours of lectures and 100 hours of clinical work

Aim: To provide dental students with competence in the clinical management of children including those with special needs.

Main Objectives:
At the end of this course the students must be familiar with the theoretical concepts and practical clinical application of the following:
- Preventive programmes
- Restorative treatments
- Minor oral surgical interventions
- Care of special need children

Assessment Methods:
- Continuous assessment
- Treatments provided are logged and recorded on student file
- Oral Examinations

Quality Development:
Not discussed

General explanation and description of Course:

Students are given 40 hours of lectures and seminars as well as carrying out treatments in the clinics. Three clinical chairs are devoted to the paediatric clinic and students in the 3rd 4th and 5th year are present in the clinic. The clinic is in the same room as Orthodontics. Senior students are assisted by junior students and who thereby learn from their senior colleagues. Students have approximately 100 hours on the clinic actually treating patients themselves. It is the policy of the department to treat patients with "special needs" such as post-transplant patients, medically compromised and physically challenged patients thereby providing students with a broad range of experience in the prioritisation of appropriate care for those most in need of treatment.

Strengths:

- Well structured and planned course
- Emphasis on practical experience
- Prioritisation of care to those most in need
- Intelligent use of students in assisting and teaching each other under staff supervision
- Modern and well maintained dental equipment

Weaknesses:

- Insufficient clinical accommodation
- Insufficient clinical staff
- Insufficient support staff
- Too many students observing rather than practising due to limited clinical facilities
- Head of unit, though exceptionally dedicated, has too many responsibilities

***Visitors' Comments and Recommendations*:**

The visitors were most impressed with what had been accomplished in the limited number of places. They were also impressed with the efficiency. The provision of preventive treatments to patients was an excellent practical expression of care of "at risk" patients. The person responsible demonstrated a considerable commitment to the success of this unit.

Innovations and Best Practices:

- Prioritisation of care to special need children
- Use of students to supplement staff training and assisting

Section 10: Public Dental Health and Prevention

10.1 Public Dental Health and Prevention

There was no discernable separate discipline in this area.

Visitors' Comments and Recommendations:
Given the importance of relating treatment to treatment needs, growing awareness of the need for evidence-based treatments and the implications of demography of dental diseases and their prevention on dental education this omission was thought to represent one of the significant deficiencies in the course in Brescia. It is fully recognised that there may be a decision to have prevention and community principles permeate all areas but apart from the students projects and individualised preventive strategies the visitors could not identify a particular responsibility for community oral health and related population strategies. This must not be taken as a suggestion of a lack of awareness of the importance of prevention by the academic clinicians and there was considerable experience in long-term follow up of high-risk patients.

We recommend that an approach is made to the University and local authorities to co-sponsor appropriate funding for the development of this area. This would have wide-ranging benefits for the community.

Section 11: Restorative Dentistry

11.1 Conservative (Restorative) Dentistry
(including Endodontics but excluding fixed prosthodontics

Hours: 380, includes 180 hours of lectures and 200 hours of clinical work

Aim: Combining laboratory and clinical training to make student knowledgeable and competent in the treatment and restoration (using appropriate materials) of dental caries, pulpal pathologies and apical lesions.

Main Objectives:
CP could you please have these completed

Assessment Methods:
Viva Voce only

Quality Development:
Not discussed

General explanation and description of Course:
This course is primarily based in laboratory exercises in "pre-clinical" laboratories followed by clinical treatment in the clinic. Four clinical chairs are devoted to the conservative dentistry clinic and students in the 3rd 4th and 5th year are present in the clinic. Senior students are assisted by junior students. They in turn learn from their senior colleagues on the clinic. Students have approximately 200 sessions on the clinic actually treating patients themselves.

A logbook is maintained in which entries are made at the end of each clinical session by tutors. Procedures are assessed on the basis of
- quality
- compliance with operative protocols

The department records the achievements of each student. They are scored as follows:
- Attitude
- Clinical approach
- Knowledge
- Ability

Visitors' Comments:
On the basis of comments made by dentists who were not employed by the dental school we were advised that a greater degree of practical experience is achieved by dental students in Brescia than most other schools in Italy. In discussion with students one of the reasons they chose to study dentistry in Brescia was because of its reputation for placing emphasis on practical dental training. This is an undoubted strength of Brescia. Nevertheless there is a need for more practical exposure of students to clinical treatment in restorative dentistry and particularly of treatments that are part of integrated or comprehensive patient care.

Strengths:

- Modern and well maintained dental equipment
- Clean and hygienic clinic

Weaknesses:

- Insufficient practical clinical experience
- Insufficient emphasis on comprehensive and integrated care
- Insufficient clinical accommodation
- Insufficient number of clinical staff
- Insufficient support staff
- Too many students observing rather than practising due to limited clinical facilities

Visitors' Comments and Recommendations:

Increase number of staff at all levels. Increase clinical facilities but consider the use of multipurpose clinics in the planned extension of the hospital to maximise efficiency and inter-disciplinary collaboration. Examples include periodontology, fixed and removable prosthodontics and also traumatology and emergency (first aid) where a greater number of endodontics treatments are carried out by students than perhaps in this clinic which actually teaches endodontics. Also suggest that consideration be given to minimal invasive techniques and to place emphasis on primary restorative care competences as the central objective of this unit.

Innovations and Best Practices:

Research orientated teaching described by Head of Unit

Comment from school

In the plans for a refitted clinic 22 dental chairs are to be devoted to comprehensive care on Monday, Tuesday, Wednesday and Thursday from 2:00 p.m. to 6:30 p.m.
Two students per chair working half time, one as operator, one as student, half time inversion of roles, integrated with dental hygienists.
Class of 30 dental students and 15 dental hygienists will work together.
In future it is proposed that all dental chairs will be devoted to comprehensive care in the afternoon same timetable with exception of:

3 chairs first aid
1 chair main intervention in oral surgery
1 chair main intervention in periodontology
4 chairs oral medicine
2 chairs clinical gnatology
The ten chairs in the orthopedodontic clinic will be involved in children's comprehensive care.

When fully established 34 chairs will be devoted to comprehensive care for 30 dental students and 15 dental hygienists during 560 hours per week 42 weeks per year.

11.2 Fixed and Removable Prosthodontics

Hours: 380 hours, includes 180 hours of lectures and 200 hours of clinical work

Aim: Combining laboratory and clinical training to make student knowledgeable and competent in restoration of damaged or missing teeth using crowns, bridges, partial dentures and full dentures.

Main Objectives:
(CP please provide details from Department)

Assessment Methods:
(CP please provide details from Department)

Quality Development:
Not discussed

General explanation and description of Course:
This course is based on an extended period in the teaching laboratories during which time the student acquires basic skills and understanding of the fundamental principles in prosthetic dentistry. Teaching is based on the biological and materials sciences with emphasis on the physiology of occlusion and related kinetics. The course includes extensive reference to the course on gnathology. There is collaboration with the other clinical disciplines such as periodontology. Two clinical chairs are devoted to prosthetic clinic and students in the 3rd 4th and 5th year are present in the clinic. Junior students assist senior students. Students have approximately 200 hours the clinic actually treating patients themselves.

Strengths:
- Modern and well maintained dental equipment
- Clean and hygienic clinic

Weaknesses:
- Insufficient practical clinical experience
- Insufficient emphasis on comprehensive and integrated care
- Insufficient clinical accommodation
- Insufficient number of clinical staff
- Insufficient support staff
- Too many students observing rather than practising due to limited clinical facilities

Visitors' Comments and Recommendations:
On the basis of anecdotal evidence in discussion with senior Italian dentists who are not on the staff in Brescia there would seem to be a greater degree of practical experience gained in Brescia than most other schools in Italy. This is an undoubted strength of Brescia. Nevertheless there is a need for more practical exposure of students to clinical treatment in prosthetic dentistry and particularly of treatments that are part of integrated or comprehensive patient care.
Increase number of staff at all levels.

Increase clinical facilities but consider as in conservative dentistry the use of shared multipurpose clinics in the planned extension of the hospital to maximise efficiency and inter-disciplinary collaboration particularly with periodontology.
Place emphasis on the basic competences in fixed prosthodontic procedures such as adhesive bridges. This course provides potential for clinical trials with two-year follow-up assessments.
The reference to the literature for students needs to be updated.

Comment from school
In the plans for a refitted clinic 22 dental chairs are to be devoted to comprehensive care on Monday, Tuesday, Wednesday and Thursday from 2:00 p.m. to 6:30 p.m.
Two students per chair working half time, one as operator, one as student, half time inversion of roles, integrated with dental hygienists.
Class of 30 dental students and 15 dental hygienists will work together.
In future it is proposed that all dental chairs will be devoted to comprehensive care in the afternoon same timetable with exception of:
3 chairs first aid
1 chair main intervention in oral surgery
1 chair main intervention in periodontology
4 chairs oral medicine
2 chairs clinical gnatology
The orthopedodontic clinic with ten chairs will be involved in children's comprehensive care.
When fully established 34 chairs will be devoted to comprehensive care for 30 dental students and 15 dental hygienists during 560 hours per week per 42 weeks per year.

Innovations and Best Practices:
General medical history of hospitalised patients in need of prosthodontonic treatment (especially Oncology, Traumatology). Outsourcing of professional dental technical service for faculty members as well as for clinical students, therefore students can follow up more patients instead of preparing dental technical work on their own.

11.3 Gnathology

The course on gnathology was a very innovative and stimulating course for students. This provided chair-side observational experience in the diagnosis and management of cranio-facial disorders and facial pain. There was a close relationship with other medical disciplines including Radiology for MRI scanning of patients. Students were introduced to the advantages of fully adjustable and semi-adjustable articulators.

Section 12: Periodontology

12.1 Periodontology

Hours: 300 hours, includes 100 hours of lectures and 200 hours of clinical work

Aim: To provide dental students with an appropriate understanding of the epidemiology, aetiology, pathology and treatment principles of the diseases which affect the periodontium.
To develop student competence in the treatment of diseases of the periodontium in the context of priorities, patient needs and community imperatives.

Main Objectives:
Students must be able:
- To describe the development and histophysiology of the periodontium
- Describe and explain the aetiology and pathogenesis of diseases which affect the periodontium
- Describe the epidemiology of periodontal diseases
- To classify periodontal diseases
- Describe how systemic factors influence the initiation and progression of periodontal diseases
- Explain the influence of iatrogenesis of periodontal diseases
- Provide preventive periodontal interventions and treatments
- To carry out effective conservative periodontal treatments
- To raise a periodontal flap in order to gain access to the root surface
- To carry out effective root planing

Assessment Methods:
- Laboratory Assessment
- Continuous clinical assessment
- Oral Examinations

Visitors' Comments
The analysis of health needs in Bergamo, Brescia, Cremona and Mantova could provide a basis for quality assurance development as well as emphasising the importance of evidence based treatments, one of the hallmarks of this course

General explanation and description of Course:
Training and teaching in Periodontology is provided over a two-year period. A substantial part of their practical training is provided in the laboratory on manikin heads with artificial calculus. Students learn how to root plane teeth with their own Gracey curettes and when the visitors attended a new cohort of students was being introduced to periodontics. Emphasis is placed on plaque control and conservative treatment although students also learn to carry out periodontal flap surgery on patients. As in other clinics considerable emphasis is placed on special needs patients thereby emphasising prioritisation of care.

Strengths:

- A well-structured course organised and delivered by a periodontist with an international reputation in his field.
- Collaboration with general medical disciplines in prioritising treatments.
- Students are required to study contemporary international literature.

Weaknesses:

- Students begin periodontology too late in their dental curriculum
- Insufficient practical clinical experience due to limitation of clinical places
- Insufficient emphasis on comprehensive and integrated care with restorative disciplines
- Insufficient clinical accommodation
- Insufficient number of clinical staff

Visitors' Comments and Recommendations:

- Periodontology provides an excellent subject on which to base comprehensive dental treatment in collaboration with the other disciplines in restorative dentistry.
- The course should begin sooner and we suggest in the second dental year
- It is also suggested that there should be follow-up surveys

Innovations and Best Practices:

- Head of Unit has devised a new instrument to measure hyperplasia of the gingiva as found in drug related conditions and for which previously there was no method of measuring the degree of hyperplasia.
- Use of contemporary literature for students.
- Good use made of laboratory facilities to help compensate for limited clinical exposure

Section 13: Oral Surgery, Dental Radiography and Radiology

13.1 Oral Surgery

Hours: 300, includes 100 hours of lectures and 200 hours of clinical work

Aim:
To provide students with the surgical skill appropriate to primary dental care
To provide students with an adequate basis in oral surgery to permit later specialisation

Main Objectives:
Students on completion of the course are able to carry out (as necessary):

- Simple extractions
- Surgical extractions
- Drainage of abscesses
- Management of eruption problems Surgical excision of simple impactions and the ability to know which ones are simple Surgical excision of tooth germs
- Fraenectomy
- Surgical excision of simple impactions and the ability to know which ones are simple Surgical excision of tooth germs Fraenectomy
- Surgical treatments of lesions of the oral mucosa

Assessment Methods:

- Continuous clinical assessment and log books
- Oral examinations

Quality Development:
Not discussed

General explanation and description of Course:
This is a very practical course where despite considerable limitation of resources, students gain practical skills in a wide range of surgical treatments as set out in the objectives in stringent cross-infection controlled conditions. They are supervised by the senior staff member, an otolaryngologist. The students' extensive experience is made possible by their exposure to the traumatology clinic which is run separately as well as extensive access to the 24-hour emergency clinic which is called "First Aid". Teaching/training is provided on surgical manikin heads in the, lectures and seminars and attendance in clinics for 48 days in years four and five.

Strengths:
Acquisition of surgical skills in dento-alveolar surgery carefully structured and executed

Weaknesses:

- Insufficient clinical accommodation
- Insufficient number of clinical staff

Visitors' Comments and Recommendations:
Further integration between traumatology, and Oral Surgery and First Aid should be considered. Also, consideration should be given to sharing the facilities between this unit

and maxillo-facial surgery including the provision of new or access to day bed facilities and operating rooms for sedated patients undergoing dento-alveolar surgery. At present students have no opportunity to gain practical training in the use of sedation techniques.

Innovations and Best Practices:
Innovation in healing promotion consequent to head of unit's research.
The combination of traumatology, First Aid (emergency dental services) and this department appear to give the students exceptional access to training in emergency primary care dento-alveolar surgery. This means that graduates of the Brescia dental hospital can carry out procedures, which in other countries may be referred for specialist treatments

Schools Comment
In the refitted Clinic a 6 place day hospital service is foreseen mainly devoted to oral surgery sessions, oral medicine and special needs patients.

13.2 Radiography and Radiology

The Visitors did not have an opportunity to discuss teaching in dental radiology/radiography. In the course of visits to the clinic, dental units had their own radiographic facilities. This required others to leave the clinic when radiographs were being taken.

The Visitors and staff were concerned about these inconvenient and potentially hazardous arrangements, despite the safety of the operations policy.

The Visitors strongly advocate a policy of ionising radiation/policy with appropriate structural planning in the new facility.

Section 14: Oral Medicine and Oral Pathology

14.1 Oral Medicine and Oral Pathology

Hours: 55

Aim:
To provide students with:
- A knowledge of diseases of the oral mucous membranes
- An understanding of the oral manifestations of systemic disease
- An ability to meet the special needs of patients with systemic diseases, especially the immunocompromised patient.

Main Objectives:
On completion of this course students must:
- Know the aetiology, pathogenesis and clinical features of common diseases of the oral mucous membranes.
- Be able to plan treatment of these diseases
- Know the protocol for prevention of diseases of the oral mucous membranes
- Understand the oral side effects of chemotherapy, radiotherapy and immunosuppression
- To treat safely patients with systemic diseases causing complications in dental treatment

Assessment Methods:
Oral Examination in year three plus a clinical case in year three

Quality Development:
Not discussed

General explanation and description of Course:
Course is taught over years 3, 4 & 5 using lectures and slide presentations in the laboratory classroom, lectures and seminars and attendance in clinics for 48 days in years four and five.

Strengths:
Committed and dedicated head of unit has organised a well-structured course with excellent collaboration between oral medicine and anatamo-pathology and other medical disciplines with strong support from her assistants

Weaknesses:
- Head of unit, despite her excellence, is too stretched with too many responsibilities
- Clinical resources are insufficient
- Insufficient support staff diverting head of unit to tasks which others with fewer qualifications could handle.

Visitors' Comments and Recommendations:
- Provide more support
- Integrate and rationalise related departments promoting others to assume part of the responsibilities

- There should be discussions to consider how the concept of integrated patient care could be accommodated with the restorative disciplines

Innovations and Best Practices:

- Breadth of course and integration with other colleagues and disciplines
- Protocol with anatamo-pathology for oral lesions (photograph of lesion combined with histopathological diagnosis) was exemplary
- Joint clinics with dermatopathology
- Students familiar with care of medically compromised patients including immunocompromised and hepatitis patients

Comment from school

In the plans for a refitted clinic 22 dental chairs are to be devoted to comprehensive care on Monday, Tuesday, Wednesday and Thursday from 2:00 p.m. to 6:30 p.m.
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In future it is proposed that all dental chairs will be devoted to comprehensive care in the afternoon same timetable with exception of:

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When fully established 34 chairs will be devoted to comprehensive care for 30 dental students and 15 dental hygienists during 560 hours per week 42 weeks per year.

Section 15: Integrated Patient Care and Dental Emergencies

(Clinica Odontostomatologica)

15.1 Integrated Patient Care and Dental Emergencies

Hours: 440 hours, includes 40 hours on 4th year and 40 hours on 5th year of lectures, in first aid and trauma centre. Students have a total of 300 - 360 hours of clinical work

Aim: to obtain integration and validation of precedent assumed knowledge and update with evidence based dentistry

Main Objectives:

- Correlation between oral and systemic pathologies
- Pain in trigeminal innervation area
- Lymph node enlargement: elements for differential diagnosis
- Ulcers: elements for differential diagnosis
- Chemosensory and salivary dysfunction
- Pharmacology in practice
- Treatment plan in multidisciplinary pathology
- Management of patient affected by systemic disease, treatment plan in these cases
- Emergency in dentistry
- Gerostomatology

On completion of this course the student should be able:

- To propose a diagnosis of multidisciplinary pathological situations, taking into account concomitant systemic disease and suggest treatment applicable in ambulatory care;
- To diagnose and recognise pathological problems needing particular treatment and to be able to refer patients for appropriate care
- To be able to manage all documents and administrative acts pertaining to deontology and forensic odontology

Assessment Methods:

Continuous clinical assessment during first aid, final examinations which consist in:

- diagnosis & treatment plan
- one complete treatment
- *viva-voce* assessment

Quality Development:

Analysis of treatment requests to Brescia Dental Hospital coming from data recording of first aid in defining priorities in attention and training

General explanation and description of Course:

Teaching and training are provided over 2 years. The main part is provided in first aid (emergency treatment) service. Students deal directly with most cases of pain, bleeding, acute infections and oral-dental traumatology (integration with the centre for dento alveolar traumatology)

Strengths:
Collaboration with general medicine and mostly with first aid service of the medical hospital and of first aid service of surrounding area hospital.

Visitors' Comments
This programme in integrated patient related to emergencies and integrated management of medically compromised or complicated patients. In this sense there was a difference in interpretation probably due to the essential differences between stomatology and odontology courses. This emphasises one of the essential advantages of stomatology in that integrated care is more concerned with total person care than in the odontological courses where relates more to integrated restorative care. This exemplifies an area where the integration between both traditions would yield a better all round balance.

Section 16: Behavioural Sciences

This section was not discussed with the exception of Ethics and Jurisprudence and was added as a section to later school visits.

16.1 Ethics and Jurisprudence

The teacher in this area has a heavy commitment to legal proceedings and was in court when the visitors were in Brescia. The visitors interpreted the syllabus as follows.

Aims: To provide students with an appropriate understanding of the principles of ethics and jurisprudence in dentistry

Main Objectives
On completion of the course the student should have an understanding of the following:

- The ethical and legal basis of dental practice
- The law in respect of responsibilities of the dentist and the profession of dentistry
- Reporting responsibilities
- Informed consent
- Forensic odontology
- Record keeping
- Confidentiality
- Iatrogenesis
- Jurisprudence
- Aspects of insurance cover

Visitors' Comments
No basis for comment as the Visitors did not have an opportunity to discuss the course.

There is no course in communications or behavioural sciences and this is a matter which might be addressed.

Section 17: Examinations, Assessments and Competences

(See competence questionnaire on following pages for questions)

A questionnaire was distributed on selected competences the results of which are to be analysed in Brescia by Dr. Paganelli in collaboration with Dr. McCartan.

17.1 Examinations, Assessments and Competences

In respect of competences completed by those recently qualified there was considerable variation in responses in respect of the following questions: 16, 19, 22, 23, 26, 27, 28.

The following competences were not achieved by a significant majority of recent graduates who responded: 18, 19, 20, 21, 25, 31, 32, 34, 35.

Visitors' Comments
There is a need to address the issue of clinical competences in at least some of the above areas.

Section 18: Other Influences

18.1 Relations with the Profession

The visitors had the privilege of meeting three senior representatives of the practising profession: Dr. A. Francesconi (representative of College of Physician and Dentists - Dentists officer), Dr. C. Bettini (regional president of the most important trade union of dentists - ANDI), Dr. D. Gregorini (county president of ANDI). There is a growing relationship between the school and the dental profession that needs to be fostered in a two way process. School staff and the profession share their alarm at the dramatic increase in student admissions without any increase in facilities or resources.

The professional representatives advocated growing inter-dependence and some of the suggestions included:

- Additional continuing educational experiences for practising dentists
- Dental students assisting in general practice and gaining experience in aspects of practice management
- Closer relations in organising courses
- A joint approach in impressing upon Government the most serious training and medico-legal consequences of inadequately trained students because of the enormous increase in admissions without the provision of additional training places in already congested dental teaching hospitals

These were not appropriate for comment by the visitors other than to say how welcome such co-operation is between the professional body and the academic unit.

18.2 Specialisation and Accreditation

There are only two recognised specialties in dentistry in Italy, Oral Surgery and Orthodontics. Training in both disciplines is governed by the recommendations of the EU Advisory Committee on the Training of Dental Practitioners. In order to be admitted or recognised for training one must have a dental qualification. In both cases training requires a minimum of three years. Eight dental schools offer specialist training in Orthodontics. Two dental schools offer training in Oral Surgery. Specialist trainees hold full-time staff appointments.

18.3 Continuing Education and Vocational Training

Neither of these is compulsory in Italy. The dental school in Brescia holds regular continuing education courses for dental practitioners but due to severe limitations on accommodation these are restricted.

18.4 Recreation and Sport

In general, as for many other dental schools, there was little time for recreation and reflection. This comment needs to be balanced by the positive student atmosphere in a school situated in one of the most beautiful hinterlands in Europe and steeped in culture and art. A short visit could not measure such benefits on study and lifestyle. If there is one concern it would be the geographic isolation of the dental and medical students from other university disciplines. Nevertheless there seemed to be a very positive student attitude and involvement.

Section 19: Student Affairs

19.1 Student Affairs

Strengths:
- Very active Associazione Italiana Studenti Odontoiatria
- Anonymous evaluation of quality of teaching by students (recently introduced)
- Small group discussion with teachers, tutors and thesis supervisors
- Information and acquisition of experience by using the Internet

Opportunities
- Further development and formalisation of students' evaluation of quality of teaching
- Intramural Internet connections for students
- Use of *DentEd* page for exchange of student information and exchanges

Visitors' Comments
The students in Brescia were extremely courteous and mannerly and very willing to participate in the exchanges with the visitors. Their behaviour in the clinics was impressive throughout. Students in Brescia are involved at every level of the hospitals activities and there is little doubt that their contribution is central to the success of the institution in many facets. They assist each other, are available to help staff where necessary and play a full role in the maintenance and tidiness of the building. They create a very positive atmosphere. There is a very active Associazione Italiana Studenti Odontoiatria, which has championed the cause of relating student admissions in Italy to availability of training places.

Students participate in anonymous evaluation of the quality of teaching by their teachers, which provides important feedback for the university. There is also small group discussion with teachers, tutors and thesis supervisors.

Information and acquisition of experience by using the Internet.

The visitors wish to express their gratitude to the students for their forthright discussion of the relative strengths and weaknesses of their school and this report has been better informed as a result of these discussions. Whilst students had constructive criticisms and suggestions for improvement the visitors were struck with the profound sense of loyalty to their teachers and the school. They seemed particularly proud of being dental students in Brescia.

A special word of gratitude is due to those most recent graduates who came back especially to discuss the course and complete the questionnaire on competences.

Section 20: Research and Publications

20.1 Publications in refereed journals

20.2 Invited to participate at major conferences

20.3 Grants awarded

20.4 Higher degrees awarded

(CP to complete numerical entries please)

Section 21: Quality Development

Not discussed on this visit.

Section 22: Visitors Comments on the School

22.1 Strengths

- Maximisation of use of present facilities
- Involvement of students at every level in running school & hospital
- Strong and effective leadership with a cohesive plan of campaign to make improvements
- Planned expansion of building to 5,000m²
- There is potential in Informatics which needs to be developed
- Illustrations
- Input from dental practitioners

22.2 Weaknesses

- Students are not fulfilling a number of the competences recommended by the EU Advisory Committee on the Training of Dental Practitioners
- Excessive student numbers for resources
- Lack of resources
- Excessive reliance on self generated income
- Inadequate staffing levels at all grades of staff
- Insufficient administrative and secretarial support
- Unfair disadvantages of language in publication and international recognition
- Research output is low but could be considered to be relatively high research in the circumstances
- Dependence of the dental school on so many other authorities in decision making
- In the course of the visit it became apparent that the continuing activities of the school of dentistry were too dependent on the personal contributions of its teaching staff in the following aspects
  - Personal financial contributions
  - Time far in excess of that for which staff receive a salary
  - Salary levels appear to be so low that dental academics in Brescia must rely too much on income generated from private practice and this is to the detriment of research and teaching

22.3 Innovations and best practices

- Care of medically, physically and mentally disadvantaged patients as routine part of student education and training
- Involvement of students in organisation, decision making, clinical assisting and maintenance of clinics and laboratories
- Leadership and direction
- Staff dedication and commitment
- Consideration might be given to the establishment of an independent co-operative clinic for staff practice that will provide freedom for staff in independent income generation if a proper salary cannot be negotiated

22.4 Recommendations

- There should be greater emphasis on all students completing all of the recommended EU clinical competences
- Rationalise the relationships between the stomatology course and the University and Hospital to provide a more efficient management and decision-making structure
- The dental school should be allowed the level of autonomy in decision making that is given to other dental schools in Europe
- There is a major deficiency in financing of the dental school compared to other EU member dental schools in Europe
- There is a serious need to appoint more professors in the dental school and provide a more predictable promotional structure
- There are serious anomalies between the university and hospital in their expectations from staff
- The hospital imposes unrealistic treatment expectations from those with teaching duties
- The university needs to encourage research activities by staff by providing facilities, finance and time.
- There should be a unified and consistent administrative structure for the dental school and hospital
- There is a serious need to appoint a non-clinical professional administrator and secretarial staff to support the clinical/academics
- Consideration might be given to the establishment of an independent co-operative clinic for staff practice that will provide freedom for staff in independent income generation if a proper salary cannot be negotiated

Section 23: Executive Summary

The visit to Brescia is of considerable significance, not only to the *DentEd* Thematic Network, but to dental education in Europe. There has been considerable diversity in the training of dentists in Italy and the School in Brescia is at the forefront of new developments led by a Dean who is also President of the International College of Dental Deans in Italy. The acceptance of a visit from *DentEd* was greatly appreciated in allowing others from Europe to share the plans, ideas and innovations of the School in Brescia.

The Dental School in Brescia is small, providing training for thirty dental students per annum. Dedicated teaching staff work in limited clinical facilities where students gain a considerable amount of practical experience in teaching laboratories. Eighteen dental chairs are available for the training of dental students.

The Dental School is in close proximity to well apportioned facilities in the Medical School and particularly good access to lecture room accommodation. The Library resources are disappointing in respect of the lack of modern up to date text books in dentistry. This is complicated by the fact that there is an insufficient number of dental textbooks in Italian.

The Visitors were impressed with the use that was made of the limited facilities and in particular recognised the fact that students gained considerable experience in what was called first-aid dentistry in Brescia and may be called emergency treatment in other schools. This treatment ranged from simple extractions to the treatment of fractures and quite significant facial and dento-alveolar trauma.

Because of the limited facilities it was necessary for junior students to observe more senior students but this method was used to good effect although the Visitors would prefer if all students had access to clinical facilities in order to avoid so much observation and increase the amount of practical clinical exposure and treatment of patients.

It must be a matter of concern that a significant proportion of the basic competences recommended by the EU Advisory Committee on the Training of Dental Practitioners did not appear to have been completed by the students and this is a matter which needs to be addressed.

It was clear to the Visitors that the staff in Brescia have to devote a considerable amount of time to earning an income separate from the income gained in the University. The Visitors considered this was to the detriment of their commitment to research and education, although there was a very generous spirit, not only in the amount of time devoted to the School but also the use of staff's own personal resources. The School demonstrated a considerable commitment to the care of special need patients, particularly medically compromised patients. Time and time again it was noted that children with physical disability or complex medical conditions were being treated as a priority by students under strict staff supervision.

The School in Brescia operated under a complex administrative structure and the Visitors were of the view that if greater autonomy were to be given to the course on Stomatology and Prosthetic Dentistry as it is called in Brescia, and autonomy to a level that is equivalent to the Medical Faculty as a whole, this would provide for a more effective organisation and decision making structure. Until it has greater autonomy it is unlikely that

significant progress can be made as it is dependent to a large extent on departments and courses given by staff who are outwith the control of the Dental School.

The Visitors were concerned about the potential conflict between Hospital employees and University employees working within the Dental School. A rationalisation of this would add considerably to the organisational structure.

Brescia has come forward as a result of strong leadership, innovation and an ability to prioritise. That strong leadership is reflected in the staff and their working relationships. It has been to the benefit of the School. In the future there will be a need to replace that leadership with the shared collective responsibility of other senior staff members. The Visitors recommend that serious consideration be given to that eventual transfer of decision-making authority in order to ensure smooth transition for future development.

Although the Visitors had no basis on which to make a judgement, they heard repeatedly from students and from dentists who are not members of the staff that the practical aspect of the course in Brescia was one of the better, if not the best of the practical training programmes in Italy. Brescia is to be commended for this. If it is so, the Visitors would suggest that there is still a considerable need for expansion of clinical competence in the Brescia programme and the implications for the rest of Italy would therefore be important if our perception of the situation was substantiated. There is no point in seeking to compare what happens in Brescia, or indeed in other Italian schools, with some of the larger and better endowed schools from other countries. The emphasis is on progress, development and sharing experiences. The innovations that have been set out in the report from Brescia are commendable and appropriate for other schools in Europe. Despite Brescia's best efforts and despite overcoming significant limitations in resources and facilities, the Visitors considered that the staff in Brescia, together with the students must press on to provide a more effective infra-structure, better resources in order to provide their students with sufficient training to ensure that they gain competence in all aspects of primary dental care.