

A Report on the Dental School

at

Queen's University, Belfast and Belfast  
HSC Trust

13 & 14 December 2010

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A review of the School of Dentistry in Belfast, chaired by Professor W P Saunders (Dean of the University of Dundee Dental School and Chair, Dental Schools Council) on behalf of the key stakeholders (Queen's University Belfast and the Department of Health, Social Services and Public Safety) was held on 13 and 14 December 2010. The following report outlines the findings of the review team and recommends a number of ways to address the key issues

## **Introduction**

Two years ago Queen's University, Belfast, underwent a fundamental change in the organisation of the Medical and Dental Schools to form a new School of Medicine, Dentistry and Biomedical Sciences, consisting of three distinct Education Centres for Medicine, Dentistry, and Biomedical Sciences and four discreet and inclusive Research Centres to which suitably qualified and motivated research-active staff from the new School would be allocated to pursue research in the designated areas of:

Cancer Research and Cell Biology  
Infectious Disease and Immunity  
Public Health  
Vision and Vascular Sciences

Two reviews have been conducted by an International Review Panel and the most recent, undertaken in April 2010, concluded that this reconfiguration has been successful. The Panel was very complimentary about the progress that has been made and a number of recommendations were made. These included a review of SUMDE for dentistry, integration across the teaching centres and the recruitment of new staff. There has been no formal review of the effect the changes in structure have had upon the Centre for Dental Education (otherwise known as The School of Dentistry).

A Dental Review Group was constituted at the invitation of the key stakeholders with a remit to review the activities of the Dental School/Hospital

and how the restructuring has affected educational, clinical and research activity in the School of Dentistry. The recommendations in this report should be forthcoming to ensure that the School of Dentistry progresses in a way commensurate with a top-level dental academic institution in a Russell Group University.

The explicit remit of the Review Group was to:

- find a way to set future structures for the Dental School as they relate to both Queen's University Belfast, School of Medicine, Dentistry and Biomedical Sciences and the Department of Health, Social Services and Public Safety.
- examine how the Dental School can flexibly link and integrate with the existing Research Centres in the new School and whether other research structures may be required for Dentistry going forward.
- look at the challenges of recruitment and opportunities for Dental Clinical Academics.
- examine unique areas of potential for the Belfast Dental School/Hospital.
- look at the national/international identity of the Dental School/Hospital.
- examine ways of ensuring that the Dental School maximises its potential to deliver both excellent dental education and a high standard of specialist clinical services.

The members of the review group were:

Prof William Saunders (Chair)	Dean of the University of Dundee Dental School and Chair, Dental Schools Council
Prof Jeremy Bagg	Professor of Clinical Microbiology and Head of the Dental School, University of Glasgow
Prof William Shaw	Professor of Orthodontics and Dentofacial Development, University of Manchester
Prof Teo Forcht-Dagi	Harvard University and Massachusetts Institute of Technology, Chair of the International Advisory Board
Prof Patrick Johnston	Dean, School of Medicine, Dentistry & Biomedical Sciences
Prof Bert Rima	Deputy Head of School of Medicine, Dentistry & Biomedical Sciences
Mrs Catherine McKeown	Manager of School of Medicine, Dentistry & Biomedical Sciences
Prof Donald Burden	Director of Dental Education, School of Medicine, Dentistry & Biomedical Sciences. Clinical Director for Dental Services, Belfast Health and Social Care Trust
Mr Donncha O'Carolan	Chief Dental Officer, Northern Ireland
Dr Tony Stevens	Medical Director, Belfast Health and Social Care Trust
Dr Michael Donaldson	Head of Dental Services for the Health & Social Care, Northern Ireland

Presentations were made by:

- Professor Johnston, outlining the structure, aims and successes since the School of Medicine, Dentistry and Biomedical Sciences was created
- Dr Tony Stevens on the Belfast Trust
- Professor Burden on the Dental Hospital, Clinical Services and the Education Programme within the Dental School.

These were exceedingly useful and provided a comprehensive overview that helped to inform subsequent discussions. In addition, the review group had an opportunity to meet the Senior Management team of the School of Dentistry and receive their candid opinions regarding the progress made and difficulties encountered since the restructuring. Discussions with them helped to provide a clear view of the state of the Centre for Dental Education.

The review team wishes to express their appreciation to Professor Gregson, the Vice Chancellor, for his hospitality and to Professor Paddy Johnston and Professor Donald Burden for their generosity and spirit of openness and frankness. Thanks are also due to Ms Roisin Smith who made all the arrangements to ensure that the visit went as smoothly as possible.

## **School of Medicine, Dentistry and Biomedical Sciences**

It was clear that the formation of the new School of Medicine, Dentistry and Biomedical Sciences had been very successful, with outstanding leadership from Professors Johnston and Rima, resulting in a phenomenal amount achieved during the last two years. As well as an impressive investment in research and clear results from that investment, including outputs and staff recruitment, there was also investment in medical education. Importantly there has been development of vital links between the University and School and the Belfast Trust at various levels which will help to plan and inform decisions of mutual interest. In addition, there has been a review of SUMDE in relation to the support of teaching in Medicine.

The School considers it essential that a plan for dentistry must be forthcoming. Currently, whilst funding has been made available for health service infrastructure, no significant investment has been made in the School of Dentistry by the University. Priorities for the School requiring infrastructure investment and support include internationalisation of the undergraduate dental programme, encouraging graduate entry and an intercalated degree programme, developing leadership across the school of dentistry, increasing the number of clinical academic and clinical staff and more integration with the other Centres within the School. Once a clear strategy was identified, then investment in appropriate posts would follow.

### **Current circumstances in the Dental School**

Queen's University School of Dentistry is a small school and unique as an institution in the Province, being the only provider of undergraduate and postgraduate university dental education, secondary and tertiary dental care services for specialities (other than oral and maxillofacial surgery, and orthodontics), clinical specialist training and with an ability to provide researchers for dentally-related basic and applied research. The Dental Hospital and School occupies a single building on the Royal Hospitals Campus. in an area of significant deprivation. The roles of Director of Dental

Education and Clinical Director for Dental Services are undertaken by one individual, Professor Donald Burden.

The Province is almost unique in that it has a relatively small and static population; there are areas of high deprivation with consequent high levels of dental and oral disease and thus opportunities for population-based research.

The School of Dentistry has struggled to fit in with the new University School structure; research activity in the dental field has all but ceased and only one dentist is a member of the School's Research Centres. Academic dental posts have not been filled after retirement and resignation and this has placed a huge burden on the teaching for the remaining staff.

Despite this there was a clear commitment by staff to the institution and a will to protect the education of the undergraduate students. Morale of the staff was judged to be very low. The day to day stresses and constraints placed on the Senior Management Team, including the uncertainty regarding the future of dental research, has made it difficult for them to develop a clear plan to extricate the organisation from the difficulties. We were unable to gauge opinions of the students but it was suspected that the student body had been adequately protected from the difficulties

The School of Dentistry has had an excellent reputation for dental education and in 2008 the School was ranked first in the Times Online Good University Guide. The quality of students admitted to Queen's has always been high. However, there was some disquiet that the current state of affairs may be having a negative effect on the reputation of the institution.

The non-replacement of clinical academic posts has had a deleterious effect on the care of patients in respect of the number and diversity of cases that can be treated within the Dental Hospital. Because of the small size of the institution, loss of one clinical academic post can result in loss of an entire specialty. Patients for student teaching in some disciplines require treatment that can be obtained in primary care and patients are recruited through local advertising. There are sufficient numbers of patients to provide the requisite

experience as defined by the General Dental Council's 'First Five Years'. Paediatric dental care is provided by the students in community-based clinics. Consultant-level staffs, both full-time NHS and joint-appointment, are in short supply, with the numbers having reduced by 50% since 2003. Some of the joint-appointment staff are having to devote increased amounts of time to chairside teaching of dental students, all of whom are undertaking irreversible procedures on patients. Some clinics do not have this consultant cover, including senior students undertaking total patient care. A number of specialities have only one Consultant, in some cases because of unfilled posts, and this has a major impact on clinical governance. The number of junior and specialist training posts in the hospital has had to be reduced because of a shortage of training Consultants.

There was very clear political imperative that the Dental School and Hospital should be extant and thriving in the Province and there was a genuine will on the part of the stakeholders to work together to help the Dental School. A clear intimation was given by the University that it did not want a 'teaching only' institution.

Financially, the Dental School is in a strong position with income to both the University and Trust sufficient to meet the needs of a thriving institution. Additional revenue has become available from government for much-needed improvements to the infrastructure of the School of Dentistry, including dental chairs and cabinetry (£2.9mill), instruments and CSSD (£2mill), digital radiography (£100k) and air and water infrastructure (£100k). This will allow complete refurbishment of all the clinical areas over the next nine years.

## **Significant Problems in the Dental School**

### Teaching

There is a noteworthy shortfall in the delivery of teaching to the dental undergraduates. The teaching staff are overstretched, with too much reliance on less experienced clinical teaching fellows and visiting general dental practitioners to deliver the core curriculum. Some teaching clinics have to be

reduced or cancelled as a result of staff shortages. It was the opinion of the external dental academics on the review team that the General Dental Council, if they were to visit, would probably find the programme 'insufficient'. It cannot be overstated that there is an acute crisis in delivery of the teaching in the Dental School.

In general, the University is reluctant to recognise teaching and other forms of scholarship as sufficient criteria for promotion of academic staff. This disadvantages those dental staff members who excel in this academic field and do not pursue research programmes.

The majority of senior clinical staff hold joint appointments between the University and NHS and the assignment of duties of staff within the School of Dentistry appeared unclear, particularly in relation to clinical academic contracts.

The new curriculum framework for dentistry developed by the General Dental Council and based upon an outcomes approach, will provide further challenges for the teachers in the Centre. The clinical areas particularly affected are Restorative Dentistry, Oral Surgery and Paediatric Dentistry.

### Research

There is also a crisis in dental research. In effect, there is negligible research activity. The lack of dental research will have a detrimental effect on recruitment to new posts.

It is clear that despite the good performance of the School of Dentistry in the RAE 2008, where 65% of outputs were judged to be 3\* and 4\*, there has been real difficulty in engaging with the Directors of the Research Centres in the new School. It has proved difficult for the dental researchers to integrate their dental research into the focused research themes pursued in the new Research Centres.

The development of research in dental education, moreover, has been impeded by a lack of depth of expertise and pressure to provide teaching. The Centre has one educationalist on the staff who has a good reputation in dental education circles but she is very much a lone figure. Furthermore, research in medical education is not currently developed sufficiently within the School of Medicine, Dentistry and Biomedical Sciences to allow effective collaboration. Dental education research was not felt to be one which should be prioritised in the development of a research plan for the Dental School.

### Service Provision

The lack of provision of Consultant-led specialist services, particularly in Restorative Dentistry, Oral Surgery, Paediatric Dentistry and Oral Medicine, is a major concern and this may be placing some patients at risk. The number of Joint Appointment and NHS Consultants overall has reduced from 20 in 2003 to 10.3 in December 2010. There are a small number of NHS Consultants and there are a number of specialities that have only one Consultant. This is causing continuing problems.

At present the service is unable to meet waiting list targets and time to treatment targets in any of the clinical disciplines except orthodontics (which is meeting new patient assessment targets but has very long treatment waiting lists). There is no specific Service Business Agreement between the Health and Social Care Board Commissioner and the Trust covering the services delivered by the Dental School

### Clinical Training

There are insufficient staff numbers to allow a full portfolio of clinical training to be undertaken at either foundation or specialist levels. There is currently no provision for Walport-type academic training pathways in dentistry in the Province.

### **Possible actions for the Dental School**

During the review it became clear that there was a very positive consensus by the stakeholders that plans should be instituted to strengthen the position of

the School of Dentistry.. The development of partnerships between the University and Hospital Trusts was particularly welcomed. The creation of three important committees involving the University and the Belfast Board have already allowed constructive dialogue. A good relationship between the Dean of the School and the Medical Director was critical to progress and this was evident.

It is clear that action is required in the short term to address the acute crisis. Of course, a middle- and long-term plan is also needed. This must include the recruitment of suitably qualified individuals who can demonstrate leadership. This will be challenging but must be addressed. It is crucial that the environment in the School of Dentistry is made attractive to encourage recruitment of the very best staff.

#### Teaching and Education

There is an urgent need to recruit clinical teachers to plug the obvious gaps in the workforce. How this is done is a matter for the Dental School/Hospital but:

1. Consideration should be given to the appointment of Consultant staff with a clear remit to undertake clinical teaching as part of their job plans. Whilst this is a more stable long-term solution, in the interim general dental practitioners should be recruited on a sessional basis to help supervise students on teaching clinics.
2. The formulation of a medium- and long-term strategy to provide a solution for academic staffing is necessary. This will take due consideration of all the responsibilities of a clinical academic including teaching, research, clinical commitment and administration.
3. There should be appropriate job planning for teaching as well as service for all consultant level staff.
4. There seemed little evidence of collaborative links within the School of Medicine, Dentistry and Biomedical Sciences, the wider university or

with other dental schools and individuals. There are opportunities for networking to strengthen teaching.

### Research

Northern Ireland has a stable population with regions of high deprivation, both urban and rural, and proportionately high levels of dental and oral disease, obesity, and cardiovascular disease. There are vast opportunities to capitalise on these circumstances through research initiatives linked particularly to Public Health. Areas that are rich and accessible for scientific investigation include:

- Investigation of common risk factors for the above, through multidisciplinary and multi-agency strategic partnerships
  - Investigation of alcohol related violence and facial injury
  - Longitudinal clinical and genetic studies
  - Oral cancer embedded with head and neck (CCRCB)
  - Stem Cell Research – future potential
  - Further development of the dental practice research network established for a current NIHR funded trial, and possible research on the forthcoming change in the new dental contract for Northern Ireland
1. There are major opportunities for interaction with the new Research Centres in the School. Whilst these centres require research of the highest calibre to be undertaken there are prospects and a will to pursue dental research of this calibre. Flexible arrangements will be required between these research centres and the dental school to allow these new opportunities for dental research to develop; e.g. through dental affiliate members in the initial stages.

2. High level strategic research alliances must be explored across the University and beyond Northern Ireland.
3. The research plan must ultimately have a clear focus on a small number of specific areas where the uniqueness of the environment within Northern Ireland facilitates top quality outputs, critical mass can be sustained, and grant winning potential is secured.
4. To establish a strong dental research unit, recruitment of high calibre dental researchers will be necessary. In tandem, it will be important to 'switch on' the cadre of existing researchers at the Dental School.

### Clinical

Service provision and clinical training are areas that must be addressed. This can be done by instituting the following;

1. The Dental School must increase the number of NHS Consultant Specialists and recruit a tranche of NHS Consultants who also have a commitment to teaching at undergraduate and up to specialist level.
2. Refined clinical protocols must be developed for patient referral to ensure that:
  - a) suitable patients are recruited for undergraduate and specialist training
  - b) the system is not overloaded with unsuitable or unnecessary referrals
  - c) arrangements are in place for shared care with other consultants in the Province, specialist practitioners and general dental practitioners
3. There should be continuing and consistent monitoring of the provision of clinical service in the Dental School, in parallel with the development of a Service Business Agreement.

## **Proposals for the Dental School**

Any proposals to allow the Dental School to thrive and succeed must be predicated on a number of high level imperatives. These are:

1. Continuing support from the government of Northern Ireland to sustain a Dental School / Hospital in the Province.
2. Continuity of the stakeholder group. This is essential, showing as it has a willingness to support the institution and help develop solutions to the difficulties.
3. An early engagement with staff to promote collaboration with all interested parties and to be engaged with the plan for further change and development. The current staff are committed and loyal and must be encouraged to interact and deliver high quality teaching and research and a clinical service that is fit for purpose.
4. Investigation of the use of information technology, particularly in respect of teaching, to align teaching with the demands that may be imposed by the new outcomes-based undergraduate dental curriculum.
5. Acknowledgement by the University of the need to have dental research embedded in the School of Medicine, Dentistry and Biomedical Sciences.

Specific areas that must be addressed include:

### Education

1. Recruit NHS and Academic staff to support teaching in a number of clinical disciplines particularly Restorative Dentistry, Paediatric Dentistry, and Oral Surgery. This must be addressed quickly, if

possible by recruitment to posts as outlined previously. It would be ideal to recruit suitable candidates for long-term appointments, particularly at Consultant level but it may be expedient to recruit general dental practitioners in the short-term.

### Research

1. The Dental School, in conjunction with the leadership of the School of Medicine, Dentistry and Biomedical Science at Queen's should establish a research group to undertake a scoping exercise to identify research opportunities and potential partnerships with the Schools new Research Centres, across the Queen's campus, eg Psychology and Engineering, and with other relevant agencies in the Province. In the first instance a flexible approach on the part of the Centre Directors would enhance this. The Public Health Centre appears to be the most obvious setting for much of the dental research mentioned above, and the recent recruitment of Professor Mike Clarke of the Cochrane Collaboration may strengthen oral health systematic reviewing capacity. The CCRCB may offer opportunities to develop an oral cancer theme.
2. A similar exercise should be undertaken to identify potential research partners in the UK, EU, and beyond. These might include discussions with the colleagues in Scotland who are already embarked upon common risk factor research, the alcohol related facial injury research group in Cardiff, the UK's recently announced Healing Foundation research centre in Manchester. Research partnerships with the dental schools in Dublin and Cork might also be explored, including possible joint appointments
3. A review of research funding sources is of the highest importance. We were unclear about the availability in Northern Ireland of the types of grants provided in England by the National Institute for Health Research, several of which are now supporting dental research in English dental schools. This is something that might be taken up

directly with the relevant agency. There is however a wide range of other funding from which UK dental schools are benefiting, including the EU and NIH.

4. The development of a clinical research facility within the Dental School by providing clinical areas that can be used flexibly might be considered, though most clinical dental research is community based. Dental education research did not appear to hold significant prominence for the Dental School and is not viewed as a priority for the future research plan.
5. A mechanism for providing competitive pump-priming funds for promising pilot or feasibility studies would give a platform for securing subsequent grant funding, and start-up funds might be considered to foster recruitment of research-active staff.

#### Service

1. There should be a clear policy for service provision and an unambiguous understanding of the importance of the role of the Dental School / Hospital in providing specialist dental and oral care to the population of the Province
2. Steps should be taken to protect the funding for service
3. There is an urgent need for the recruitment of Consultant NHS staff
4. There must be suitable clinical training programmes, as defined by the relevant Specialty Advisory Committees, as part of a needs assessment and succession planning.
5. Funding should be available to allow dentistry to introduce Walport-style programmes to allow academic trainees to undertake formal clinical and academic training in Northern Ireland

6. A critical issue for the service is to address the major concern of isolated specialties such as Oral Medicine.

The position in which the School of Dentistry finds itself is as a result of a number of compounding factors. The review group were impressed with the commitment by the staff to address the difficulties and an enthusiasm to help the School recover from these. Particular praise must be extended to Professor Burden who has shown excellent leadership and managerial qualities throughout this difficult period.