ROYAL COLLEGE OF PHYSICIANS AND SURGEONS OF GLASGOW
DENTISTRY

Dental Scholarships and Awards Report Template

Please use typescript or CAPITAL LETTERS when filling out this form

SECTION 1 PERSONAL DETAILS	
Title (please circle): Mr **Other _____**	**PID:**
Surname: Ban	
Forename(s): James	

SECTION 2 PROJECT DETAILS	
Scholarship(s) Awarded: **TC White Travel Grant**	**Amount Awarded: £** 2000
Project Name: Tufts University School of Dental Medicine Placement	**Project Location:** Tufts University, Boston, USA

Project Aims and Objectives:

To observe clinical dental practice techniques for the treatment and treatment planning of patients with:

- Hypodontia
- Head and neck cancer
- Cleft lip and palate

To observe planning and placement of dental implants

To ascertain the differences in treatment planning and treatment techniques between Bristol and Tufts

Summary of Visit/Project *(including pictures, methodology, results and conclusion if applicable)*:

I attended Tufts University School of Dental Medicine for 5 days between the 5th-9th of June. When I arrived, I was given a tour of the hospital, which is a 15 storey building in downtown Boston.

The hospital acts as both a primary care unit where patients may self-refer and also as a secondary referral centre, with some patients I met having travelled vast distances, at times

via aeroplane to attend for care. The floors comprised of undergraduate and postgraduate training floors, in addition to faculty practice floors, where staff members use hospital dental chairs for private practice.

As we are aware the UK hospital system has priority patient groups, who may be funded for courses of dental treatment within the hospital system. However, the USA has an insurance based system whereby a premium is paid monthly (Approximately $500 can be paid for comprehensive cover for a single healthy middle aged individual, excluding dental cover). Certain plans will provide up to a maximum of $1000 for a single episode of dental treatment, with the patient having to self-fund any costs above this.

I was told that the government will fund basic care for those individuals on lower incomes, unlike the UK where hospital treatment is offered on the basis of oral health needs. This basic care includes dental extractions, however this is not extended to restorations. Patients will also receive funding for a set of dentures once every 7 years, regardless of the quality of the dentures constructed.

Upon discussion, it would also appear that the structure of the health system can also make it financially difficult for families of patients with hypodontia, as it is often hereditary, if there are a number of children in the family they may all require extensive dental care in some shape or form, presenting a substantial financial burden on family units.

Restorative Dentistry as a specialty is very different in the UK as it is in the US. In the UK training includes periodontics, prosthodontics, endodontics, treatment of hypodontia, and dental rehabilitation of patients with cleft lip and palate and head and neck cancer. However US Restorative dentists appear to be more like general dental practitioners.

In the US, specialists in endodontics, prosthodontics and periodontists will carry out treatment as part of a team, which can substantially increase the time taken to develop a treatment plan as no decision is made about a specific area of care e.g. endodontic status of a tooth without the appropriate specialist being present. This large multi-disciplinary approach was particularly evident with the planning of hypodontia cases, which is done with the support of periodontists, prosthodontists, endodontists and orthodonists, where as in the UK it usually involves orthodontists and restorative dentists. However the advantage of the approach utilised by Tufts is that an additional multi-disciplinary meeting away

from clinics take place to discuss and finalise treatment plans, where there appears to be a lot more time afforded to each patient, through this process. This approach would be difficult to utilise on a routine basis in the UK due to the sheer numbers of patients who are seen in the system.

I also spent some time with the craniofacial pain centre team at Tufts, which treats patients with a variety of complaints. A large number of these include temporomandibular joint dysfunction. This department in particular seemed to be where patients would travel extreme distances for treatment as the care offered was via a multi-disciplinary approach with dental and medical professionals who offer a multifaceted treatment package. This included a specific splint therapy regime, which seems to result in excellent patient feedback. I observed patients at the delivery stage and review stage once the splints had been utilised for some time.

For those patients whose treatment involved splint therapy, day and night-time splints were constructed, utilised for 3-4 weeks initially. The splint worn throughout the day utilised tripod contact, with the posterior most teeth and anterior teeth in contact, with relief in the premolar regions. The splints worn at night had no anterior contact. They were thermoformed and modified chairside with additional acrylic. My observed advantage of this approach over a Michigan or Tanner splint was at the fabrication stage. The splints could be delivered fairly quickly and although clinical time is increased to fabricate the splint, it appeared that this approach created a more accurate splint, avoiding lab articulation of models and the possibility of introducing errors at this stage, which can result in lengthy fit appointments for Michigan and Tanner splints.

During my visit to Tufts I had a number of discussions regarding the treatment of peri-implantitis. As we know there is currently no generalised consensus as to how to treat this condition, which compromises dental implants and can ultimately result in their loss. I found it reassuring that other centres find treating peri-implantitis just as difficult as we do in Bristol. As with my unit, they note inconsistent results for the various treatment modalities that can be utilised. Although the discussion did highlight some subtly different approaches that I will certainly look to introduce to Bristol Dental Hospital.

I observed a number of dental implant placement procedures during the week, some using 3D implant planning software and computer guided dental implant stents for dental implant placement. This was used to great effect where there was limited inter-tooth space, and it was particularly useful for placement in the upper lateral incisor regions which can be quite challenging due to lack of space available and high aesthetic risks.

I would like to thank the Royal College of Surgeons and Physicians Glasgow for the TC White Travel Award which has given me the opportunity to expand my clinical knowledge through visiting Tufts School of Dental Medicine.

Learning Outcomes (*how aims and objectives were met*):

To observe clinical dental practice techniques for the treatment of and treatment planning of patients with:
Hypodontia
Head and neck cancer
Cleft lip and palate

To observe planning and placement of dental implants
To ascertain the differences in treatment planning and treatment techniques between Bristol and Tufts

Please see a the summary section – these were met by spending time with different staff members/ postgraduates in treatment planning sessions and clinical sessions treating these various patient groups on a number of different departments throughout Tufts University School of Dental Medicine

Evaluation *(including description of the impact of the project/award on your clinical and/or NHS practice):*

The placement at Tufts University School of Dental Medicine has broadened my clinical knowledge and experience of a number of areas which I have had limited exposure to during my training programme. Introducing a number of new materials, thought processes and approaches to dentistry that I found particularly useful.

The visit has also highlighted that there are a number of treatment approaches which my current unit and the UK as a whole use very effectively, that other parts of the world do not (i.e. the conservative dentistry approach, utilising composite resin where appropriate, with very little cost to tooth structure

and health). Therefore I hope as well as personally taking away new ideas and clinical appraoches, hopefully I stimulated interest with regards to the 'European' and UK way of thinking and treatment planning, which will hopefully benefit patients on the other side of the Atlantic too.

Please e-mail the completed report and supporting information to:
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