

MAXILLOFACIAL PROSTHETICS AND TECHNOLOGY TODAY

With the changing workload of the maxillofacial technician comes the change in title to 'maxillofacial prosthetist and technologist'. Maxillofacial laboratory support now extends beyond maxillofacial surgery to all surgical disciplines and very many therapies. Realistic prostheses are now created using contemporary silicones and are usually implant-retained. Co-operation between anaplastologists around the world is common. Modern, laboratory-constructed trauma splints, post-burn appliance therapies and vast improvements to the implant systems, in addition to the traditional technology, cause this profession to require a new type of education programme. The UK School of Maxillofacial Prosthetics and Technology is to be formed and will run a part-time, in-service MSc course. The School will comprise the British Association of Oral and Maxillofacial Surgeons (BAOMS), The Institute of Maxillofacial Prosthetists and Technologists (IMPT) and the Manchester Metropolitan University (MMU).

Maxillofacial prosthetics and technology usually recruits students from a Dental Technology background. During the 1990s, several universities in the UK, Europe and the USA validated undergraduate programmes for Dental Technicians. In the UK, the University of Sheffield and the MMU both validated courses in 1993; these have been followed by the University of Wales Institute, Cardiff in 1997. The validation of these courses has provided a massive stimulus to technology research.

The new courses were required for a number of reasons, primarily to reflect the increasing levels of academic background required for the practice of dental technology. Traditional patterns of recruitment into dental technology also changed drastically during the 1980s. The traditional vocational route as an alternative to A-level study became less popular, as more students elected to study A levels. The number of new entrants with good entry qualifications reduced significantly in common with other engineering- and technology-based disciplines. The introduction of an A-level standard degree entry from 1993 has enhanced the calibre of new entrants. Offers for entry are now made on the basis of two A levels at grade C, with the average student possessing three A levels at grade C.

For many years, there has been considerable concern over the lack of formal in-service education for maxillofacial prosthetists and technologists. The present scheme of day release to the MMU or Lambeth College (to study maxillofacial units in the Higher National Certificate) is only a form of pre-clinical education. Students have to travel weekly often up to 150 miles to attend. It is inappropriate for patients to attend these centres to expose students to clinical problems, and the nature of the courses means that it is almost impossible for these students to attend clinics in nearby hospitals to gain that experience. Most newly qualified applicants for posts are thus limited in their clinical ability for their chosen specialty.

The role of the maxillofacial prosthetist and technologist has changed radically over the last 20 years. The range of work now extends considerably beyond the cast-metal splint and osteotomy plan. The provision of maxillofacial laboratory support now extends to all surgical disciplines and many therapies. These requirements, and the changes in dental technology education, have stimulated a review of maxillofacial education by the IMPT, the BAOMS and the MMU over the past three years.

A new postgraduate in-service training and education programme has been devised. It will involve the formation of a National School comprising the three bodies. The school will be based at the MMU which will organize the accreditation, delivery and examination of the course. The course is to be a Master of Science in Maxillofacial Prosthetics and Technology, and will be a three-year hospital-based course where students attend the MMU, hospitals or other universities for periods of up to a week at a time. During these periods, it is anticipated that the students will attend a diet of lectures, clinic and theatre attendance, seminars, tutorials and practical sessions. These sessions will be delivered by members of the course team, and invited clinical and technical speakers. The students will be employed in accredited higher training units with both clinical and technical mentors.

The course team will involve technologists, materials scientists, microbiologists and academic staff from other disciplines as required from the MMU, eminent technologists from around the country, and clinical lecturers and assessors. Oral and maxillofacial surgeons who wish to be involved in the organization, assessment, or delivery of the course should contact Chris Maryan at the MMU for further details by telephoning 0161 247 3330.

The validation of the degree is due to take place this summer with the first students starting in January 1999. The plan is to take six students per year into fully funded, single-student training posts at hospitals around the country. A joint BAOMS and IMPT approach is at present being made to the Department of Health to fund this proposal.

The level of maxillofacial laboratory support for other surgical and medical disciplines varies from unit to unit. Neurosurgery is supported with custom-made polymeric, silicone and metallic implants, ENT support includes such treatments as custom-made hearing-aid moulds, prosthetic rehabilitation and implantology.

Post-mastectomy prosthetic care is becoming a large and growing commitment for the maxillofacial laboratory.

The support for plastic surgery continues to expand from burns pressure masks to reduce hypertrophic scarring to facial and body prosthetics. The abilities of maxillofacial prosthetists and technologists to create very lifelike cosmetic hand prostheses has generated significant work in some hospitals supporting the orthopaedic and plastic hand specialists to rehabilitate those patients with either congenital or traumatic hand defects. The development of implant-retained finger, hand and arm prostheses will generate a significant demand for quality prostheses.

Units that closely liaise with ophthalmology and oculo-plastic surgeons have seen a major demand for high-standard, custom-made ocular prostheses. The laboratories are able to offer the broad understanding of materials and techniques to apply them to new situations such as expanding sockets in children with congenital anophthalmia.

The technical support for burns has demanded significant academic and technical development by maxillofacial prosthetists and technologists. The process of scar formation and the effect of pressure, retention and splint design, and materials selection for pressure masks has generated considerable work and research.

The dynamic splinting therapies for patients with hand injuries and the support for physiotherapy and occupational therapy provides a significant workload in some centres. The work with occupational therapists and physiotherapists also extends to the development of custom made or prototype appliances for patients with problems ranging from severe arthritis to tetraplegia.

The BAOMS now meets on a regular basis with the IMPT Council Members to discuss education, ethics, research and other areas of common interest.

The IMPT is currently organizing its 1999 international conference in London, a member of Council

has recently been granted an MBE, a coat-of-arms has been granted by the College of Arms, statutory registration is being sought and the IMPT now publish their own journal, the *Journal of Maxillofacial Prosthetics and Technology*.

The IMPT invite all people with an interest in any of the specialties, namely prosthetic rehabilitation, implantology, splint therapy and pre-surgical planning, to apply for associate membership. There are three levels of membership: Associate Membership, for students, people in allied professions and for people who have been unable to obtain recognized qualifications; Membership, for qualified maxillofacial prosthetists and technologists; Fellowship, for members who have made an outstanding contribution to the specialty or who have successfully completed the IMPT Research Fellowship award.

Application forms and further details about the activities of the Institute are available from the Registrar: Mr Michael A. Thompson FIMPT, Maxillofacial Laboratory, Oral Surgery Department, Royal Preston Hospital, Sharoe Green Lane North, Preston, PR2 4HT, UK.

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