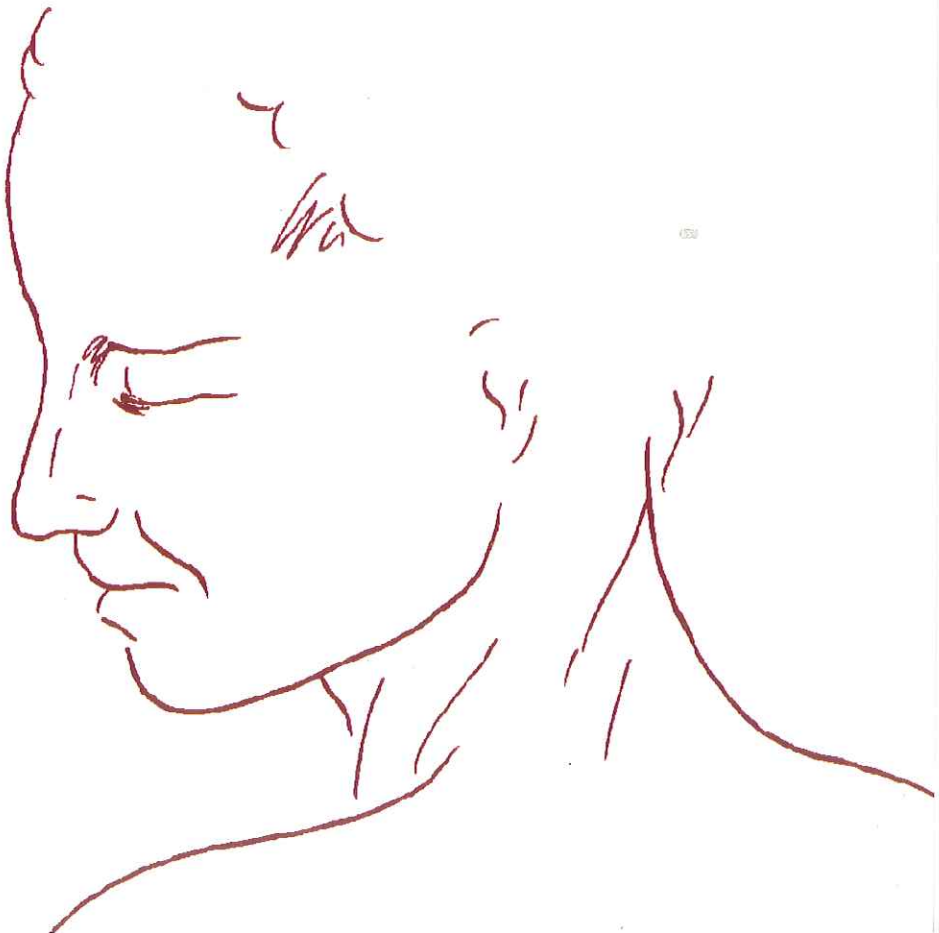
The Institute of Maxillofacial Prosthetists & Technologists

23rd Biennial Scientific Congress

5th-7th September 2007
University of Leeds
Yorkshire, UK



programme and abstracts

THE IMPT 23RD SCIENTIFIC CONGRESS -2007

Dear Delegate

Once again it is my very great pleasure and honour to again welcome our members and guests to this the 23rd Scientific Congress on Maxillofacial Prosthetics and Technology. We have again the opportunity to welcome many of our friends and colleagues from overseas.

This year we will see a change at the top of our Institute, as many of you are aware the years have seen an increase in the number of female Maxillofacial Prosthetists and I am delighted to see that 'girl power' has finally arrived and that we will see what I hope will not be the first and last female President and Chairman of our Institute.

I believe that this year's varied programme will provide us with the stimulation to debate the future roles and pathways that we as healthcare professional need to follow.

I would also like to thank the Congress organising committee for their help and support in organising this event.

Kevin Page MBE FIMPT
Chairman of The Institute of Maxillofacial Prosthetists and Technologists.

2007 Congress Organising Committee

Mr Paul Bartlett
Mr Richard Eggleton
Mrs L Gill
Mr Kevin Page MBE
Miss Sarah Parkinson
Mr Matt Pilley

Message from Organising Committee

To assist presenters of papers, all delegates are respectfully reminded that mobile phones and radio pagers should be set on silent running or switched off in the lecture theatre.
Thank you

The Institute of Maxillofacial Prosthetists and Technologists

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Mr Colin Hopper, MBBS BDS FDSRCS FRCS(Ed)

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Mrs Sheila Fisher MSc FDSRCS FFDRCSI FRCS

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Mr C V Fraser-MacNamara MIMPT (Hon)

Miss S Parkinson BSc (Hons) MIMPT

Miss S Quinn MIMPT

Mr F Walker MSc FIMPT

Mr J Watson B Med Sc MIMPT

Congress Awards

The Wim de Ruiter Delft Plate

Awarded for the most outstanding scientific technical display or workshop.
Mr Wim de Ruiter a commercial laboratory owner from Ridderkirk near Rotterdam provided a maxillofacial prosthetic service for the Rotterdam area and donated this award in 1985.

The Mount Vernon Award

Awarded for the most outstanding lecture. Designed and fabricated by Chief Maxillofacial Prosthetist Mr John Hayward at Mount Vernon Hospital, this award was first presented at the 1981 IMPT Congress held at Brunel University, London.

The Presidents Award

Awarded for the most outstanding artistic contribution to maxillofacial prosthetics. This award was inaugurated in 1983 at the IMPT Congress held at the Royal College of Surgeons, London.

The Kidd Award

Awarded for the most outstanding contribution to implant technology. This award was donated by Mr Norman Kidd, who began making sub-periosteal implants in 1956 and upon his retirement, instigated the Kidd Award Plaque in 1997.

Technovent Award for the best first time lecturer

2007 Congress Award Assessors

Mr Alan Bocca
Mr Fraser Walker
Miss Barbara Anne Thomson

The Chairman's Award

Awarded for outstanding services to maxillofacial prosthetics. Donated by Mr Brian Conroy in 1969, the award was commissioned- "*For those who have given signal service for advancement in technology, prosthetics, surgery and other activities that relate to maxillofacial prosthetics and technology*".

The IMPT Travel Fellowship

To provide the means for study and research.

Wednesday 5th September 2007
Session Title: Head and Neck Surgery. Chairman Mr Kevin Page MBE / Miss Sarah Parkinson

09.15 Delegates Seated

09.30 Welcome and opening address
Mr Kevin Page MBE
Induction of President Mrs Sheila Fisher
Induction of Chairman Miss Sarah Parkinson.

09.45 What do you need? Who can help you? Assessing the Quality of Life in Individual Patients in Routine Clinical Practice.
Mrs Sheila Fisher

10.35 Tea/Coffee

10.55 Geographical variables of sunlight resulting in higher incidence rates of age-related disease of the skin and eye. "Keynote speaker- BAOMS Sponsored lecture"
Dr David Sliney PhD

11.35 From Bond to Bones: evolution of a novel composite for craniomaxillofacial reconstruction.
Professor Chris Rudd

11.55 Computer aided design of orbital rim implant.
Mr. M Pilley

12.15 CAD/CAM Technology in constructing maxillofacial prostheses; Review of the literature.
Muhanad Hatamleu

12.25 Conclusions on digital technologies in soft tissues facial prosthesis designs
Dominic Eggbeer

12.35 Questions/Discussion

1.00 Lunch

Session Title: Update on Oncology Session Chairman Sheila Fisher.

2.00 Evolving concepts in chemo radiotherapy for Head and Neck Cancer
Dr C Coyle

2.20 Evolving aspects of Oncology Surgery
Mr. TK Ong

2.40 Questions/Discussions

2.50 The Face – a mirror of the soul.
Dr Volker Schwiper

3.20 Assessment of vascularity in irradiated and non irradiated alveolar bone by laser Doppler flowmetry, an animal study.
Henk Verdonk.

3.30 Questions/Discussion

3.40 Tea/Coffee

4.10 Maxillofacial Unit-Dhaka, Bangladesh
Liz Gill, Kevin Page MBE

4.30 I would like to work overseas in a developing country
Colin Haylock MBE

4.40 Maxillofacial Prosthetist-a requirement
Ramesh Chowdrey

5.00 A comprehensive diploma programme in maxillofacial prosthetics in the Indian sub-continent –need of the hour
Mohit Kheur

5.20 Questions/Discussions

5.30 Close of Lecture Programme.

7.00 Reunion Dinner

Thursday 6th September
Session Title Maxillofacial Prosthetics where are we where are we going?

09.00 CPD/Short courses the IMPT'S vision. Mr. Fraser Walker, Mr. Kevin Page MBE

AFC the final results. Mr. David Allen.

Council now and the future its changing role! Miss Sarah Parkinson.

Indemnity insurance why we need it and what it means to you! Mr. Matt Pilley / Mr. John Lamb MPS – Risk Solutions.

10.00 Questions/Discussions

10.30 Tea/Coffee
Poster Session / Trade Exhibitions in The Great Hall

P.1 Review of lagopthalmos treatment
Carman Orbanja

P.2 Studies on masticatory efficiency in patients after resections in the maxillary region
Prof. Dr Bernd Reitemeier and Joern Brom

P.3 Maxillofacial Prosthetics in Japan
Minami Katsumata

P.4 Pull –out behavior of glass fibers embedded into Biomedical silicone in fiber reinforced maxillofacial prosthesis
Muhaned Hatamleu

P.5 The use and need of patient information leaflets
Yvonne Moore

P.6 The evolution of an intraoral trifocal mandibular transport disc distractor-concept to clinical application
Fraser Walker, V R Beale and Prof. Ayoub

P.7 Hair control in Maxillofacial Surgery and prosthetics: back to the roots
Lachlan Carter

P.8 A novel modification in construction of titanium cranioplasty for large craniofacial defects.
Lachlan Carter, Paul Bartlett and John L Russell.

P.9 Prosthetic nasal reconstruction with Zygomatic implants using drill guides from computer generated models and direct production from computer data.
Simon Hodder, Peter Evans and Alan Bocca.

P.10 The Use of Stereolithographic Models and Conventional Craniofacial Laboratory Technology in Simulation and Transfer of Maxillary Distraction with the Trans-Sinusoidal Maxillary Distractor: A Technical Note.
Naseem Ghazali, Piet Haers, Cristina Nacher, Ian Thompson

P.11 Co-managing Obstructive Sleep Apnoea/Hypoapnoea Syndrome (OSAHS) Using Oral Mandibular Advancement Devices
Naseem Ghazali, Nilu Abizadeh, Nick Connolly, Cristina Nacher, Robert Bentley, Christoph Huppa

P.12 A novel approach to keloid pressure therapy
PR Diston, BA Mitchell, J Watson

P.13 The future is now! Laboratory based surgical planning has finally evolved
J Watson, A Chandra, PR Diston, BA Mitchell

P.14 'Direct Write' technology in Maxillofacial Prosthetics; innovative collaboration between 'high tech' business and the NHS
J Watson, A Chandra, P Kilburn, R Barrett, D J Williams, I Halliday

12.00 Lunch

12.45 Depart for York by coach return 6.00 pm

7.15 for 7.30 Civic Reception where canapés and drinks will be served.
(Please note no evening dinner will be provided.)

Friday 7th September
Session Title: Case study forum Chairman Mr. Ian McCleod MBE

09.30 Case study
Pauline Paul

09.40 The Partial Orbital Prosthesis
Joern Brom

09.50 The use of silicone foam in prosthetic restoration of post surgical necrotising faciitis.
George Payne

10.10 Questions/Discussion

10.30 Tea/ Coffee

11.00 20 years of Craniofacial Rehabilitation in South Wales
Peter Llewellyn Evans

11.20 Locator Locator Locator
Heidi Silk

11.30 In house Custom made TMJ Implants
Peter Bowman

11.40 Questions/Discussion

12.00 IMPT Extra ordinary meeting.
IMPT Members only

12.30 Lunch

Session Chairman Miss Sarah Parkinson

2.00 Illegitimi non carborundum
Adrian Kearns

2.20 Does my Bung look big in this!
Rachel Jenner

2.30 Pressure therapy and its effectiveness in the treatment of Keloid scars
James Diamond

2.40 P G Tips An over view of the authors preferred techniques.
Paula Garraway

2.50 Working in the real world, (registration, ethics and litigation).
Chris Maryan

3.10 Questions/Discussions

3.30 Close of Congress
Miss Sarah Parkinson

Coaches depart for Banquet and prize giving ceremony 6.45 return Midnight

Saturday 8th September
Please vacate rooms and return room keys by 10.00am

ABSTRACTS

Wednesday 5th September 2007

Mrs Sheila Fisher
Maxillofacial Surgery, Faculty of Medicine and Health, University of Leeds.

What do you need? Who can help you? Assessing the Quality of Life in Individual Patients in Routine Clinical Practice.

Our patients suffer not only the consequences of their disease or disorder and its diagnosis be that developmental, trauma or cancer related but the ongoing effects on important functions, such as speech and swallowing, challenges in terms of appearance and resulting problems in resuming an active social life or a return to employment. It is these 'impacts of disease' areas which were highlighted in a recent major study by Macmillan Cancer Support (the 'Listening' study) as the most important area for patients and carers.

My background is as an active maxillofacial oncology surgeon in the period when free tissue transfer was becoming the norm. In time, the decisions about what we should do (or not) and how people coped with their disease became a major focus of my work and I moved to an academic appointment here in Leeds in 2000 to facilitate progress of Head and Neck related research.

This lecture will focus on my work to investigate the needs of individuals and to look at the way their needs might be identified and met. We have used both touch-screen computer technology and interviews and are currently evolving a communication tool for use by all health professionals and their patients, for information, setting goals for progress together and for monitoring needs, areas of difficulty and of progress.

Dr David Sliney

Geographical variables of sunlight resulting in higher incidence rates of age-related disease of the skin and eye. "Keynote speaker- BAOMS Sponsored lecture"
No Abstract received

Professor Chris Rudd.
Dean, Faculty of Engineering, University of Nottingham.

From Bond to Bones: Evolution of a novel composite for Craniomaxillofacial reconstruction.
No Abstract invited speaker

Mr M Pilley
Leicester Royal Infirmary

Computer aided design of orbital rim implant.

The use of Computer Aided Design (CAD), Rapid Prototyping and Computer Aided Manufacture (CAM) can optimize facial reconstruction. This case shows a patient who underwent extended maxillectomy for ameloblastoma and had several reconstructive operations but was left with an orbital rim and malar prominence deficit. CAD was used to replicate the normal anatomical form of this site, mirrored from the opposite side, and a CAM wax pattern used to produce a cast titanium implant. The steps in this process and the difficulties in practically linking the technologies are described.

Muhanad Hatamleu

CAD/CAM Technology in constructing maxillofacial prostheses; Review of the literature.

Applications of the CAD/CAM system in maxillofacial prosthodontics include the fabrication of different facial prostheses of defect sites. Generally, the automated fabrication of facial prosthesis follows the steps of taking facial impression of the defect side using a laser scanner to provide a 3D facial measurement. Then the data is sent to a computer to generate a cast of the patient's defective side for fabricating a physical prototype of the prosthesis using either rapid prototyping or Computer Numerically Controlled milling (CNC).
This work reviews the different CAD/CAM techniques used and the recent advances present till this date.

Dominic Eggbeer

Conclusions on digital technologies in soft tissues facial prosthesis designs

There has been much discussion on the application of digital technologies in extra-oral, facial prosthesis production, particularly in the last ten years. Much of the literature has relied upon the evaluation of a single case study or has concentrated on the engineering or the clinical aspects of the process. Thus coherent conclusions on how digital technologies may be effectively integrated into health care systems have not yet been made.
What was research is now becoming regular clinical practice in some major units. Critical evaluation of quality, clinical effectiveness and economics is vital to ensure that the development and integration of digital technologies meet the demands of the maxillofacial prosthetics profession, patients and the health care system.

This presentation will conclude the findings of a program of doctoral research into the application of digital, computer-aided technologies to facial prosthesis production. Critical evaluations of currently available technologies and techniques will be discussed and conclusions on how they may be best applied to meet the needs of Prosthetists, patients and the health care system given.

Dr C Coyle
Clinical Oncologist, Leeds Teaching Hospitals NHS Trust.

Evolving concepts in chemo radiotherapy for Head and Neck Cancer

Mr. T K ONG
Maxillofacial Surgeon, Leeds Teaching Hospitals NHS Trust.

Evolving aspects of of Oncology Surgery
No abstract invited speaker

Dr Volker Schwiper

The Face – a mirror of the soul.

Therapy of large basal cell carcinomas and the so-called terebrans basal cell carcinoma often requires tumour resections which are mutilating, such as amputation of the nose, orbital exenteration, resection of large areas of facial skin, and/or amputation of midfacial bones. Frequently the patients have refused any therapy for many years and have been living in social isolation.
One hundred and eight large skin tumours involving the midface were operated at Fachklinik Hornheide in a five-year period. Individual psychological and psychosocial

care was necessary for each of these patients prior to surgery and individual surgical treatment plans had to be worked out.
Following surgical resection of the tumour, one step for rehabilitation of the individual patient consisted in surgical repair of the midfacial defects by local and distant flaps as well as transfer of microsurgically anastomozed free flaps. The other important step was preparing individual implant-borne facial prostheses using magnetic or implant-bar fixation. This type of fixation of modern craniofacial prostheses largely contributes to a patient's private, social and professional rehabilitation.
Especially cases of orbital exenteration and those with a lack of surgical means to reconstruct the eyelids nicely demonstrate the possibilities of modern facial prostheses.

Wednesday 5th September 2007
Continued

Henk Verdonk

Assessment of vascularity in irradiated and non irradiated alveolar bone by laser Doppler flowmetry, an animal study.

The purpose of this animal study was to confirm that Laser Doppler Flowmetry (LDF) is a reproducible method for assessing maxillary and mandibular alveolar bone vascularity and that maxillary and mandibular alveolar bone vascularity is less in irradiated bone when compared to non-irradiated bone. All maxillary and mandibular premolars and molars of 6 Gottingen minipigs were extracted. After a 3-months healing period, 3 minipigs received irradiation at a total dose of 24 Gy. At 3 months after irradiation, 5 holes were drilled in the residual alveolar ridge of each edentulous site of all minipigs. Local micro vascular blood flow around all 120 holes was recorded by LDF, prior to implant placement. In 1 irradiated and 1 non-irradiated minipig, an additional hole was drilled in the right edentulous maxillary site in order to be able to perform repeated LDF recordings. The alveolar bone appeared less vascularized in irradiated than in non-irradiated minipigs. The effect of radiation showed to be more pronounced in the mandible than in the maxilla. LDF was demonstrated to be a reproducible method for assessing alveolar bone vascularity. However, recordings varied per edentulous site as well as per minipig. In order to be useful in human beings, normal values of vascularity of the various alveolar sites should be known. These values may not only vary from person to person, but may also be depending on the individual amount of local alveolar bone. Therefore, further research validating LDF s use in human beings; especially in those who have undergone radiation therapy for head and neck cancer is necessary.

Liz Gill, Kevin Page
University Of Sheffield, Frenchay Hospital Bristol.

Maxillofacial Unit-Dhaka, Bangladesh

In November 2005 we introduced the first training programme in Maxillofacial Prosthetics at Dhaka Community Hospital. The Hospital was established in 1988 and is a Trust owned, non profit making organisation providing health care for low income under privileged people. The nutritional status and health care awareness of the people is poor, particularly in the rural areas, the women, children and elderly are often a distance away from any medical facility and as a consequence of this, it's this group that suffer the most.
With this in mind we are returning to Dhaka in November with a larger team and aim to cover seven specialist areas from breast work to obturators. Our long term objectives are to return every year with a different team of specialists and we have recently formed our own website & are in the process of forming a charity called MPT's Abroad. This website will be available shortly (mpt'sabroad.com.) and will contain lecture presentation's, information/advice of working abroad and contact details should you wish to join the team.

Colin Haylock

I would like to work overseas in a developing country

Following my early retirement from the NHS as a Consultant Maxillofacial Prosthetists it was my intention to work as an overseas consultant in developing countries 'the purpose of this short presentation is to identify some of the pitfalls that may arise with working overseas in developing countries and the rewards should you be successful'.

Ramesh Chowdrey

Maxillofacial Prosthetist-a requirement

In recent years there has been much advancement in many other disciplines in dentistry. There has been a progressive world wide demand for the specialized services personals. Maxillofacial Prosthetist is one of them. But unfortunately in many countries there is a severe shortage of suitable trained, qualified persons capable of providing this service for the patients who require them. This paper will highlight the present status of maxillofacial prosthesis specialty in my country, the advancement in material science, social stigma the patients suffer from, the amount of importance pertaining to maxillofacial prosthesis specialty given in dental education curriculum, and the finally an appeal to the congress for suggestions and involvement for the betterment of the patients of my country.

Mohit Kheur

A comprehensive diploma programme in maxillofacial prosthetics in the Indian sub-continent –need of the hour.

India has the dubious distinction of having the largest number of oro-facial cancer patients in the world. Oral cancer accounts for approximately 25 percent of all cancer cases in the subcontinent, as per latest studies.
Lack of awareness in the population, the socio-economic status of the affected and a compromised health care-delivery system (especially in the rural areas) usually result in patients undertaking treatment in advanced stages of the disease and thus require extensive surgeries, followed by chemotherapy and/or radiotherapy. Thus the role of a maxillofacial Prosthetist is critical in completing the overall rehabilitation of the patient.
Presently, maxillofacial prosthetic technology is taught as part of the post-graduate curriculum in Prosthetic Dentistry. There is a greater emphasis on Intra-oral prosthetics only. The lack of materials (especially silicones and other elastomers), lack of training in using the same, lack of expertise and experience is a big hurdle towards fabricating extra-oral prostheses. The same is not covered in any academic curriculum in the country, including that of Dental Technology and hence laboratory support is also lacking for those few who wish to practice.
A lack of remuneration coupled with the reasons mentioned above, does not make a full-time, dedicated Prosthetist profession very viable, at this time.
There is an acute need to train the trainers in the subcontinent towards Maxillofacial Prosthetics. The curriculum at institutes that run courses, such as Kings College, Chicago Dental School and Mahidol University can be used as a scaffold towards developing a program for the subcontinent.
This paper discusses the need and also presents an outline for such a program. The program would be tailor made to suit the requirements of the concerned personnel in the prevalent conditions and is aimed at advancing the noble science of Maxillofacial Prosthetics via training of clinicians and dental technicians, to enable them to treat and serve the patients.

Carman Orbanja
Poole Hospital NHS Trust

Review of lagopthalmos treatment

Review of different weight systems to correct paralysis of the orbiculari oculi muscle.

Dr Bernd Reitmeier, Joern Brom
Dresden

Studies on Masticatory efficiency in patients after resections in maxillary region.

The results of this study show that masticatory efficiency of the patients with resection prostheses was the lowest.
Based on the aforementioned results and the data from the nutrition reports, an attempt was made to develop nutritional guideline for the patient with resection prostheses.

Minami Katsumata
Morriston Hospital Swansea

Maxillofacial Prosthetics in Japan

Japan has a population of 125 million; we describe the facial and body prosthetic provision to this large populace, with discussion on how the service is funded and geographical distribution of clinics. Implant systems used along with materials are described and results illustrated.

Muhaned Hatamleh
Turner Dental School Manchester

Pull-out behavior of glass fibres embedded into Biomedical Silicone in Fibre Reinforced Maxillofacial Prostheses

Fibre-reinforced maxillofacial prostheses have been presented recently in treating patients with facial disfigurements. Such prostheses include the fabrication of a framework of glass fibres and injecting the silicone through the framework.
This study aimed to test the effect of embedding length of glass fibres into heat vulcanized silicone through conducting pull-out mechanical test.

Yvonne Moore
Southern General Glasgow

The use and need of patient information leaflets

A patients understanding of their treatment and care/wear of their prosthesis is needed to prolong the life span of their prosthesis which in turn will help the patient maintain confidence in their treatment helping to improve their psychological well being .(2)
The aim of the research was to review the professional, legal, ethical and design issues relating to patient information leaflets and their effectiveness.
This research will be used to determine a protocol for the writing of leaflets
For the maxillofacial prosthetics and technical service of the Glasgow Southern General.

Fraser Walker, V R Beale, Prof. Ayoub
Southern General Glasgow

The evolution of an intraoral trifocal mandibular transport disc distractor- concept to clinical application

Introduction
A prototype intra-oral distraction device has been developed which can be used for trifocal distraction to reconstruct mandibular segmental defects. The development of this devise will be discussed and the application of the distractor demonstrated using a clinical case.
Methods
The prototype distractor was custom made in the maxillofacial laboratory. The device consists of a square tapped threaded rod preshaped to match the desired dimensions of the new bone and tissues. It is attached to the posterior mandible on each side by 2 fixation plates which provide anchorage and stability. Anterior plates are attached to the rod via a square sleeve and fixed to the osteotomised bone transport segments. These are distracted after a 5 day latency period by turning a nut behind the sleeve which transports the bone segments forward 0.5mm with each complete turn following the vector determined by the position and curvature of the rod until they meet. The development of the devise and it's use to recreate bone and soft tissues in a longstanding anterior mandibular defect resulting from a childhood malignancy will be demonstrated.
Results
Approximately 6 cm of anterior mandibular bone was formed via trifocal transport disc distraction osteogenesis using this device.
Conclusions
Transport disc distraction is a realistic option for reconstruction of segmental mandibular defects in selected cases. This original design for a prototype distractor which allows recreation of the anterior mandibular contour is contained entirely intra orally. Further modifications to the prototype device are underway.

Lachlan Carter
Leeds Dental Institute

Hair control in Maxillofacial Surgery and Prosthetics: back to the roots

Many procedures in Maxillofacial Surgery and Prosthetics involve the hair bearing scalp or the hair bearing skin of the face. This poster describes a classification of intra-operative and pre-procedural hair control techniques identified in the published literature. Each method is illustrated and discussed.

Lachlan Carter, Paul Bartlett, John L Russell
Leeds Dental Institute

A novel modification in construction of titanium cranioplasty for large craniofacial defects

Craniofacial bone loss due to traumatic injury, infective process or surgical resection of malignant disease is a significant reconstructive problem. Titanium is currently the material of choice in cranioplasty construction. We present a method for construction of titanium cranioplasty to reconstruct large craniofacial defects.

Simon Hodder, Peter Evans, Alan Bocca
Morriston Hospital Swansea

Prosthetic Nasal Reconstruction with Zygomatic Implants using drill guides from computer generated models and direct production from computer data

This poster will highlight the use of digital computer technology for the replacement of zygomatic implants for prosthetic nasal retention. The development of drill guides has:

1) Allowed avoidance of critical structures with minimal exposure of the facial skeleton.
2) Greatly reduced the operating time.
3) Gives a more favorable and predictable postoperative position of the implants and emergency profile of the implant for placement of magnets or bars and clips for retention of the prosthesis.
4) Allowed a more biological nasal air flow.
5) Increased patient satisfaction.
6) Utilization of CT data for construction of wax Rapid Prototype prosthesis, dramatically reducing prosthetic construction time.

Seventeen cases have been treated to date with a loss of only two zygomatic implants in irradiated patients with recurrent malignant diseased SCC's of nose.

Ms Cristina Nacher
Maxillofacial Unit, King's College Hospital

The Use of Stereolithographic Models and Conventional Craniofacial Laboratory Technology in Simulation and Transfer of Maxillary Distraction with the Trans-Sinusoidal Maxillary Distractor: A Technical Note

The management of severe maxillary hypoplasia can be achieved by maxillary distraction but its successful outcome is dependent on accurate vector planning and transfer during surgery. The intraoral trans-sinusoidal multidirectional maxillary distractor (TS-MD, KLS Martin, Germany) device is recommended in cases of severe maxillary hypoplasia for movements of up to 30mm. The manufacturers recommend the use of computer software planning coupled with rapid prototyping technology for 'perfect vector indication'. These systems are often expensive and not widely accessible. An alternative method was developed in our Unit by utilising stereolithographic (SLG) models with conventional craniofacial laboratory technology for the pre-surgical distraction planning, simulation and vector transfer. The SLG model combined with conventional craniofacial laboratory technique is a viable and cost-effective alternative method to computer software technology in the planning, simulation and vector transfer of maxillary distraction using the TS-MD device.

Ms Cristina Nacher
Maxillofacial Unit, King's College Hospital

Co-managing Obstructive Sleep Apnoea/Hypoapnoea Syndrome (OSAHS) Using Oral Mandibular Advancement Devices

The KCH Maxillofacial Unit has provided a MAD service for the management of OSAHS since 2000. There has been an increasing number of referred patients in recent years. As this trend is expected to continue, it was vital to produce a local treatment protocol for guidance through a standard audit process. All patients issued with MAD between October 2004 to December 2006 were included in this study. A review of case notes, study models and radiographs was performed for data collection. A patient questionnaire was also collected and the gold standard of OSHAS management was based on the guidelines from the American Association of Sleep Medicine (1999). Diagnosis of OSAHS achieved in our cohort were based on clinical symptoms in combination with sleep nasendoscopy and/or polysomnography. The use of MAD in OSAHS is well established although its efficacy is largely case selection dependant.

Our cohort of patients reported an overall improvement in the symptoms and quality of life with MAD usage.

Thursday 6th September 2007
Continued

Jason Watson
Maxillofacial Laboratory, Nottingham

A novel approach to keloid pressure therapy

A technique is described for the treatment of ear keloids. New research and development being undertaken by the maxillofacial laboratory (Nottingham University Hospitals) and Technovent Limited (Leeds, UK) . Two new methods of direct and indirect keliod splinting are described. This novel approach has improved aesthetics and made location of the splints much easier for the patient. The ease of use and improvements in aesthetics have increased patient compliance with post operative splinting. This has reduced the need for secondary surgical procedures.

Jason Watson
Maxillofacial Laboratory, Nottingham

The future is now! Laboratory based surgical planning has finally evolved

Rapid Prototyping (RP) is not new to the field of maxillofacial prosthetics and technology. It has been described by various authors but until now its use has been limited to research and case studies. It is being increasing used as a standard in cranioplasty fabrication, craniofacial surgical planning and some facial prosthetic rehabilitation. The limiting factor has been the availability of the technology (geographical), costs (materials and machinery) and technical 'know how' of the MPT. The maxillofacial laboratory established a craniofacial RP service 5 years ago. This service relies on external bureaus to process and build the three dimensional (3D) models. This takes time, it is expensive and the process restricts NHS innovation in RP use. A research project, undertaken with Loughborough University, has been looking at the types of technology available; increasing the application of this technology in the NHS; funding its inclusion and subsequently creating a truly 'laboratory based' RP service. The first service of its kind has been established in a maxillofacial laboratory in the UK (Queens Medical Centre, Nottingham). Utilising 3D printing technology, this service has proved highly successful and shows the way forward to developing a sustainable maxillofacial laboratory service for the future. The commercialisation of services in the NHS will see many small laboratory and surgical services closing. As a profession we have to innovate to survive.

Jason Watson
Maxillofacial Laboratory, Nottingham

'Direct Write' technology in Maxillofacial Prosthetics; innovative collaboration between 'high tech' business and the NHS

A 2 year study of direct writing (DW) technology (rapid prototyping and rapid manufacturing) is being undertaken. The study has been funded by the DTi (£900,000) to encourage collaboration between NHS (QMC), universities (Loughborough) and direct write businesses (Delcam, 3TRPD) and to develop new and innovative applications for technology.
The initial findings and progress of the study are described. Numerous methods of laser surface scanning technology have been explored. Various DW technologies have been trialed for their integration into current laboratory and clinical processes.
The collaborative process has proved fruitful for both parties. Numerous innovations have emerged to allow commercial exploitation of the healthcare sector by DW companies. Ultimately the incorporation of technology into the NHS will improve and expand services to patients.

Friday 7th September 2007

Pauline Paul
Southern General Glasgow

Case Study: Laboratory and Surgical Approach To Complex Maxillary Hypoplasia - An Unorthodox Way Forward.

A 48 year old female was referred to our Maxillofacial Department after an unsuccessful Le Fort I osteotomy to correct Maxillary Hypoplasia. The bone graft had become infected and she suffered Osteomyleitis and Sepsis for 3 years post operatively. Distraction Osteogenisis was attempted to correct the deformity, however due to poor bone quality was unsuccessful.
Reconstruction is to be attempted using an Osteocutaneous Flap. I will present the complex laboratory surgery planning, and construction of templates for the correction of this patient's deformity.

Joern Brom
Heidelberg Germany

The partial orbital prostheses

Two cases of partial orbital defects are present. Both are provide by a partial prostheses. The difficulties and the problems of those prostheses are shown.

George Payne
Southern General Glasgow

The use of silicone foam in prosthetic restoration of post surgical necrotising faciitis.

Case study of a 62yr old lady with post surgical Necrotizing Fasciitis.
A large excision of tissue was taken from right side of chest wall and abdomen extending on to her back and anteriorly to the midline. The right breast was also removed.
I will describe the fabrication of an extensive body prosthesis using Matrix M-3240 Silicone foam and the success of retaining the prosthesis with a made to measure garment.

Peter Llewellyn Evans
Morriston Hospital Swansea

20 Years of Craniofacial Rehabilitation in South Wales

In 1987 the South Wales Facial and Audiological Implant Team (SWFAIT) treated their first prosthetic case. Over 200 patients later we present the successes and lessons learnt over the past 20 years in relation to planning, surgery, nursing and prosthetics. Finally the presentation looks at the future for Craniofacial Prosthetic rehabilitation in the UK.

Heidi Silk
Poole Hospital NHS Trust

Locator Locator Locator

Case presentation of patient with nasal collumella prosthesis and the use of a locator abutment for retention

Peter Bowman
Ninewells Hospital Dundee

In house custom made TMJ implants

There re custom made TMJ already available on the market. However, this lecture describes a developed method of in house production of a two part TMJ joint implant built upon stereolithographic models, along with custom location templates.
The results are promising, providing a reduction in implant cost and theatre time.

Adrian Kearns
Queen Victoria Hospital East Grinstead

Illegitimi non carbonundum

Opinions on the Maxillofacial diploma, two years Vocational Training and the AIB process are given through confidential questionnaires.
Perspectives given on the new structure to become a full IMPT member through the people who have completed this epic journey.
Positive and negative views are expressed; advice is given on how to improve - not only lecturers and institutes, but line managers and senior colleagues.

Rachel Jenner
Kent and Canterbury Hospital

'Does my bung look big in this'

This study compares the weight of packing materials used for immediate surgical Obturation. This study also offers an evaluation of material retention methods and a calculation of cost.

James Diamond
Queen Elizabeth Hospital Birmingham

Pressure Therapy and Its Effectiveness in the Treatment of Keloid Scars

The aim of this study is to evaluate the effectiveness of pressure therapy in the treatment of keloid scaring of the pinna. The study was conducted at the department of maxillofacial prosthetics at the Queen Elizabeth Hospital, Birmingham. 25 patients participated in the study over an 18 month period. The results show that pressure therapy is an effective treatment of keloidal scarring. However, patient compliance is a major factor in achieving good results. A new pressure splint design was developed and trialed during the study, which received positive feedback from patients.

Paula Garraway
Royal West Sussex Trust, St Richards Hospital Chichester

P G Tips An over view of the authors preferred techniques.

An over view of the authors preferred techniques for fabricating prosthetic nails, Ocular shell prostheses and an anti TMJ dislocation appliance.

Chris Maryan
Manchester Metropolitan University

Working in the real world, (registration, ethics and litigation).

Statement of problem
The beginning of statutory regulation of dental technologists and the future regulation of maxillofacial prosthetists and technologists (MPTs) changes the basis under which we practice. The role of the regulators has changed following a number of scandals.

Patient's rights and, and the information available to them places greater expectations upon the professional performance of prosthetists. MPTs design, select and manufacture a wide range of devices either to the prescription of another healthcare professional or to their own.

Method
The current literature in relation to patient rights and the duties of a professional, and the basis under which the materials are selected and used was reviewed.

Results
The range of legal, regulatory, and ethical guidance in the treatment of patients is extensive. In addition, the MPT must be aware of the regulatory requirements and scientific evaluation for the manufacture of devices. These create a significant challenge to the practicing MPT in maintaining their professional knowledge of regulatory issues as well as keeping up to date in their practice.

Conclusions
The standards for healthcare professionals and dental professionals publish explicit requirements to practice in the interest of the patient with their informed consent. The materials used in devices may exceptionally be potentially harmful to patients for which patients need to be aware when prescribing, designing and manufacturing maxillofacial devices.

TRADE CONTRIBUTORS

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