The Institute of Maxillofacial Prosthetists and Technologists

24th Scientific Congress

9th – 11th September 2009

at the **Belfast W5**

2 Queen's Quay, Belfast

Who What Where When Why Interactive Science Venue

Hosted by

The Northern Ireland Plastic and Maxillofacial Laboratory
South Eastern HSC Trust
The Ulster Hospital
Dundonald

Programme and Abstracts

The Impt 24th Scientific Congress - 2009

Dear Delegates

It gives me great pleasure and honour to welcome our members and guests to this the 24th Scientific Congress on Maxillofacial Prosthetics and Technology. I would also like to take this opportunity to extend a warm welcome to many of our friends and colleagues from overseas.

This year we see a change to our usual programme format, which is a direct result of the IMPT Council listening to its membership following our congress in Leeds, 2007. We have planned stimulating “hands on” workshops for all delegates, followed by two full days of lectures and poster presentations that are sure to initiate plenty of discussion amongst the conference guests.

I am in no doubt that this years programme will be both enlightening and educational for all the delegates, from the trainee to the most experienced Maxillofacial Prosthetist amongst us.

I would like to give special thanks to the Congress organising committee for their tireless help and support in organising this event.

I hope you all enjoy the conference and the delightful Irish entertainment we have scheduled.

Sarah Parkinson BSc (Hons) MIMPT
Chairman of the Institute of Maxillofacial Prosthetists and Technologists.

Learning Objectives

To provide an opportunity for all Maxillofacial Prosthetists and colleagues to meet, discuss, evaluate and determine the best available clinical, scientific and technological treatments for patients.

Learning Outcomes

Every delegate will have seen and been able to question a comprehensive range of current, “state of the art” clinical, scientific and technological options for the treatment of patients.

Assessment of the Learning Outcomes will be undertaken using a questionnaire, “Feedback Form”. This form will be supplied to every delegate in their Congress folder and should be returned completed to the Congress Organisers. Continuing Professional Development, (CPD) certificates will be issued to delegates who register and sign attendance for this event.

2009 Congress Organising Committee

Mr Richard Eggleton
Miss Sarah Parkinson
Mr David Thompson
Miss Barbara Thomson
Mr Mark Townend

Message from Organising Committee

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

The Institute of Maxillofacial Prosthetists and Technologists

President
Mrs Sheila Fisher MSc FDSRCS FFDRCSI FRCS

President Elect:
Mr Peter Ramsay-Baggs FDS FFD FRCS

Immediate Past President:
Mr Colin Hopper, MBBS BDS FDSRCS FRCS(Ed)

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Mr Alan Bocca MSc FIMPT

Mr Mark Cutler FIMPT Co-opted

Mrs Liz Gill BSc (Hons) MIMPT

Miss Paramjit Kaur MIMPT

Mr Charles V Fraser-MacNamara MIMPT (Hon)

Mr Matthew Pilley MIMPT Co-opted

Mr David Thompson MIMPT

Miss Barbara Thomson MIMPT

Mr Fraser Walker MSc FIMPT

Mr Jason Watson B Med Sc MIMPT

Mrs Carol Winter MIMPT Co-opted

Congress Awards

Assessed Awards

The Wim de Ruiter Delft Plate (Netherlands Award)
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 innovative 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

2009 Congress Awards Assessors

Mr Don Brewer MIMPT
Mr Antti HulterstrÔm FIMPT
Miss Sue Insole MIMPT
Mrs Carol Winter MIMPT

Presented Award

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".

Peer Assessed Award

The IMPT Travel Fellowship
To provide the means for study and research.

The IMPT 24th Scientific Congress
Belfast 9th – 11th September 2009

Plans are now finalised for this event and The IMPT is very grateful to David Thompson and his colleagues in Northern Ireland for hosting the Congress. The workshop and plenary sessions will be held on the waterfront at an interactive scientific venue and accommodation has been secured in a brand new hotel with a central city location and in walking distance to the Congress venue.

The programme is presented below and we hope that the altered format will provide delegates with a very interesting and informative time. We also trust that the Congress and programme will allow for the presentation of the very varied and innovative work being carried out within the profession.

Welcome to Belfast.

Congress Details

Congress Venues

1. Registration – Workshops - Plenary – Scientific Posters – Exhibition - Lunches
   Belfast W5 - Who What Where When Why Interactive Science Venue
   2 Queen's Quay, Belfast BT3 9QQ Tel: (028) 9046 7717

2. Congress Hotel – Accommodation – Reunion Ceilidh
   Premier Inn 2-6 Waring Street, Belfast BT1 2DX Tel:(028) 9072 7143

Delegates who have booked the complete Congress package and will be attending the Workshop Sessions on the afternoon of Wednesday 9th September may check into the Congress Hotel for that night to receive the complimentary single night accommodation.
Breakfast is included on the morning of 10th September 2009.

Delegates arriving in Belfast on the morning of Wednesday 9th September may check into the Congress Hotel to receive their rooms or secure bag storage before proceeding to the Congress Venue for the Workshop's.

On Wednesday 9th September 2009 no evening dinner will be provided but delegates may obtain this at the Congress Hotel at their own expense or take advantage of the many restaurants near this central location.

Delegates who wish to stay at the Congress Hotel before and/or after 9th and 11th September can arrange this at their own expense by booking personally with the Premier Inn. Please Contact Cathy Waddell Sales Manager Belfast Tel: (028) 9072 7143 E-mail: cathy.waddell@whitbread.com
When booking please quote The **IMPT** to obtain consistent rates.

3. Congress Prize Giving Event and Dinner.
   Belfast W5 - Who What Where When Why Interactive Science Venue
   2 Queen's Quay, Belfast BT3 9QQ Tel: (028) 9046 7717
   Transport will be provided for Delegates who have booked the complete Congress package.

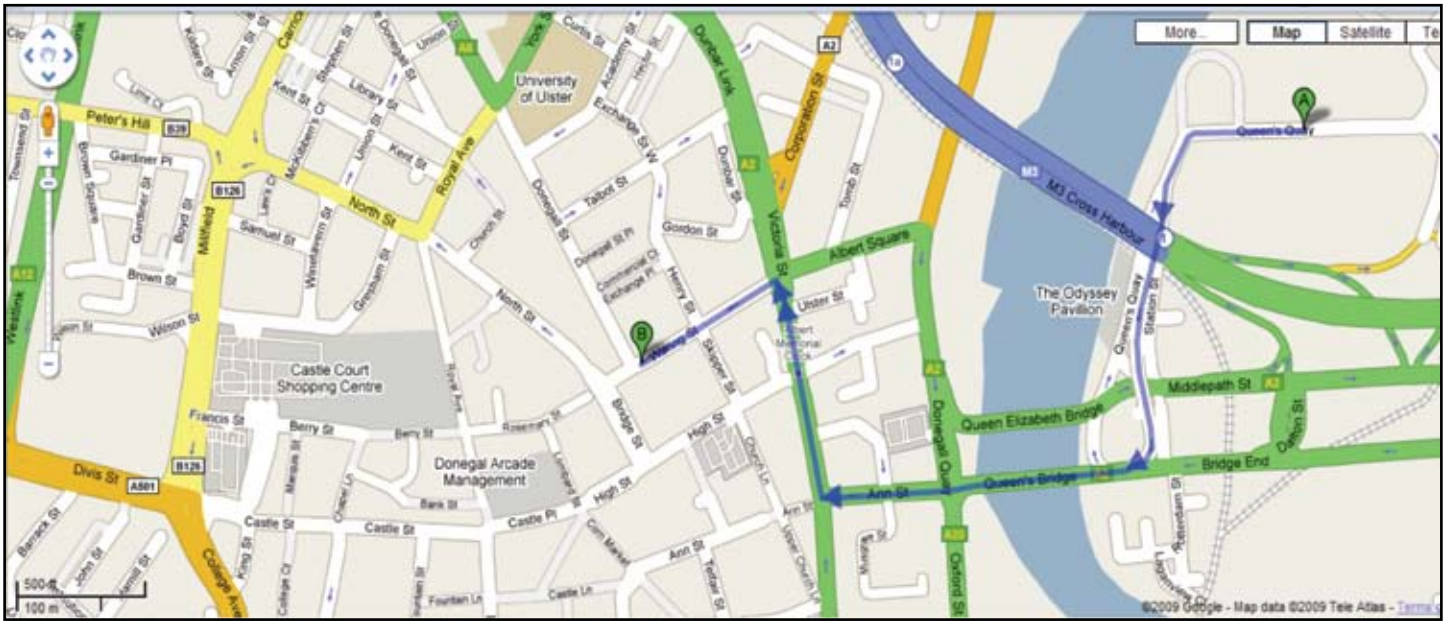
Travel

Belfast is served by two airports:
Belfast International – Approximately 30 minutes by taxi or bus to the Congress Venues.
Belfast City George Best – Approximately 15 minutes by taxi to the Congress Venues.

Ferries from a number of United Kingdom ports dock in the centre of Belfast minutes from W5 and approximately 10 minutes from the Premier Inn.

There is ample parking at W5 at a cost of around £3 per day.
The Premier Inn does not have any on site parking but ample 24 hour pay facilities are very close by.

W5 and the Premier Inn are within an easy 15 to 20 minute walk of each other.



Belfast City Centre: A – Belfast W5 B – Belfast Premier Inn Waring Street

Congress Programme

Wednesday 9th September 2009

The President and Council of The IMPT would like to express their thanks to all the presenters of the Workshops for their support and time and sharing their experiences with Delegates.

12:00 Belfast W5 Light Lunch Tea and Coffee
Registration
Scientific Poster Set Up Lecture Theatre Reception
Exhibition Set Up Lecture Theatre Gallery

Continuing Professional Development, (CPD) – Would all Delegates please ensure that they print and sign the Attendance Register for each Workshop, CPD Certificates will only be issued on this basis.

12:50 – 13:40 **1 Group A**
Lecture Theatre – Workshop – Anatomical Modelling and Facial Reconstruction on the Human Skull
Mr Richard Neave

2 Group B
Laboratory – Workshop – M511 Gel Catalyst and Extrinsic Colouration
Mr Alan Bocca, Mr Peter Evans and Technovent

3 Group C
Seminar Room 1 – Workshop – Mimics 3D Visualisation of CT Image Measurements
Mr Carl Hitchens Materialise UK
For this Workshop Delegates will need to bring or share a personal laptop, (portable) computer. Temporary software is to be provided and Delegates are invited to register for a download of Mimics at: http://www.materialise.com/materialise/view/en/277522-Download.html?register=true
Further detail of the software is available at:
http://www.materialise.com/materialise/view/en/92078-Mimics.html
When Delegates install the software they should contact Mr Carl Hitchens and state IMPT Congress they will then be sent passwords to last the duration of the Workshop's. carl.hitchens@materialise-rp.co.uk

4 Group D
Seminar Room 2 – Workshop - Silicone and Colour with the Spectromatch Digital System:
Clinical Application to Colour Match Silicone Elastomers for Facial Prostheses using King's College Hospital Protocol
Mrs Cristina Nacher-Garcia, Miss Paramjit Kaur King's College Hospital
Mr Peter Wright Spectromatch

13:45 – 14:35 Repeat of all Workshop's
1 Group B 2 Group A 3 Group D 4 Group C

14:40 – 15:45 Lecture Theatre Gallery
Exhibition
Tea and Coffee

14:45 Belfast W5 Main Entrance
Arrival and Welcome of the Minister of Health for Northern Ireland
Miss Sarah Parkinson Chairman The IMPT
Mrs Sheila Fisher President The IMPT
Mr Peter Ramsay-Baggs President Elect The IMPT
Mr David Thompson Council Representative The IMPT

Minister of Health and Welcoming Party to tour Congress

15:10 Lecture Theatre – Delegates to be seated
Official Opening of the 24th Scientific Congress 2009 by the Minister of Health for Northern Ireland, President, President Elect and Chairman the IMPT
Welcome and opening address
Miss Sarah Parkinson Chairman The IMPT
Induction of President Mr Peter Ramsay-Baggs

15:35 – 16:25 Repeat of all Workshop's
1 Group C 2 Group D 3 Group A 4 Group B

16:30 – 17:20 Repeat of all Workshop's
1 Group D 2 Group C 3 Group B 4 Group A

17:20 Close of Workshop Sessions

Check in at Belfast Premier Inn Waring Street Evening free – No events organised for Delegates

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Thursday 10th September 2009

08:45 Belfast W5 Tea and Coffee
Registration
Scientific Poster Set Up Lecture Theatre Reception
Exhibition Set Up Lecture Theatre Gallery

09.15 Lecture Theatre - Delegates to be seated

09:20 Welcome and opening address
Miss Sarah Parkinson Chairman The IMPT

09.30 "If you think you've got troubles…." subtitle "Batons, beatings, bullets and bombs"
Mr Peter Ramsay-Baggs President The IMPT

10:05 Questions

Session1: Consolidating Existing Practice and Taking it Forward. Chairman Miss Sarah Parkinson

10:10 What Are You Talking About?
Mr Adrian Kearns

10:25 The IMPT Travel Fellowship – An Eye on Namibia
Mr Barry Edwards, Miss Sarah Quinn

10:40 'Show Me the Money'; Accessing Allied Health Professions (AHP) and Healthcare Science (HCS) funding to support MfP Training and Development
Mr Jason Watson

10:50 Questions

11:00 Scientific Poster's, Company Exhibition's with Tea and Coffee

Session 2: Computer Aided Medical Design and Modelling. Chairman Mr David Thompson

11:30 Masterclass Lecture - An Overview of Current Rapid Prototyping Medical Modelling in the UK
Dr Richard Bibb

12:00 Questions

12:05 DMLS;The Future of Custom Made Cranioplasty Design and Manufacture
Mr Jason Watson, Mr Phil Kilburn

12:15 Prosthetic Rehabilitation of Nasal Septal Defects
Mr Andrew Richmond

12:25 Development of a Custom Breast Prosthetic Service
Mr Peter Evans

12:35 Facemaker Project: Development of a Custom Computer Aided Design (CAD) Solution for Healthcare Professionals to Develop New Services and Improve Outcomes for Patients
Mr Jason Watson

12:50 Questions

13:00 Scientific Poster's, Company Exhibition's with Lunch

Session 3: The British Association of Oral and Maxillofacial Surgeons Lecture. Chairman Mr Mark Cutler

14:00 Keynote Speaker
Changing the Facial Image – The Salisbury Experience of Osseointegrated Implants for Dental and Facial Rehabilitation
Mr Tim Flood

14:30 Questions

Session 4: Materials their Selection and Application. Chairman Mr Mark Townend

14:35 Masterclass Lecture - Silicone Materials and Colour
Mr Alan Bocca

15:05 Questions

15:10 Challenges in Maxillofacial Prostheses
Ms Kirsty Millar

15:20 A Study Concerning the Colour Stability of Facial Silicone Prostheses
Ms Karolin Löfborg

15:30 Spectromatch – Useful Tool or the Definitive Solution to Colour Matching Silicone.
Mr Matthew Pilley

15:45 Questions

15:55 Scientific Poster's, Company Exhibition's with Tea and Coffee

Session 5: Facial Prosthetics and Implants. Chairman Mr Alan Bocca

16:20 Masterclass Lecture – 30 Years with Osseointegrated Facial Prostheses – History and Developments
Ms Kerstin Bergström

16:50 Questions

16:55 Construction of a Auricular Prosthesis with Consideration for the Incorporation of a Hearing Aid
Mr Gareth Robinson

17:05 Prosthetic Rehabilitation of the Lower Jaw Maxilla and Cheek
Mr Joern Brom

17:20 Magic Mushrooms
Mr Adrian Kearns

17:30 Questions

17:40 Close of Plenary Sessions

19:30 Reunion Ceilidh Congress Hotel
Buffet Meal with traditional Irish music and dancing

Friday 11th September

08:45 Belfast W5 Tea and Coffee
Registration

Session 6: Scientific Poster Presentations.
All Presenters to be with their Scientific Poster/s to discuss and answer questions from Delegates and the Awards Assessors

08:50 – 09:25

P1 Implant Retained and Non Implant Retained Partial Orbital Prostheses of the Lower Palpebra
Brom J

P2 A Light Cured Orthognathic Wafer an Improvement on the, “Norm”
Bunn S

P3 The Shrewsbury Stent
Bunn S

P4 Achieving the Optimum Fit First Time: Using Alginate Based Molding in the Provision of a Pressure Glove
Dear R, Pilley M

P5 Design and Manufacture of Protective Sports Splints
Dovgalski L

P6 The Computer Aided Design and Rapid Manufacture of an Orbital Implant
Eggbeer D, Evans P, Bocca A, Sugar A, Booysen G, Bibb R

P7 Lighter Weight Breast Prostheses
Heath D, Brown K

P8 Effect of Extra Oral Aging Conditionings on Mechanical Properties of Maxillofacial Silicone Elastomer
Hatamleh M M, Ployzois G, Silikas N, Watts D C

P9 Effect of Extra Oral Aging Conditionings on Colour Stability of Pigmented and Un-Pigmented Maxillofacial Silicone Elastomer
Hatamleh M M, Watts D C

P10 Maxillofacial Prosthetic Rehabilitation MSc Distance Learning
King's College London Distance Learning Unit

P11 Pilot Study to Investigate the Production of Accurate Patient Assessment Models Using CAD/CAM and Rapid Manufacture
Koria H, Watson J, Clark S, Barratt R

P12 Investigation into the Manufacture of an Improved Facial Burns Splint for Paediatric Patients Utilising 3dMD Face Imaging, Facemaker Software, (Delcam) and Selective Laser Sintered, (SLS) Models, (3TRPD)
Mitchell B, Watson J, Kilburn P

P13 Clinical Protocol to Colour Match Silicone Elastomers for Facial Prostheses Using the Spectromatch Digital System
Nacher-Garcia C, Kaur P

P14 The Role of the Maxillofacial Prosthetist within the Management of the Orthognathic Patient: A Multidisciplinary Approach
Nacher-Garcia C, Short N, Kaur P, Connolly N, Clamp L

P15 Obturator Construction Utilising Hollow Box Techniques Adapted to Produce a Hollow Alveolar Ridge for Anatomical Reconstruction and Weight Reduction
Marshall G, Newsam D, Deans F

P16 CT Based 3 Dimensional Frontal Sinus, (FS) Templates in Osteoplastic Flap, (OPF) Surgery
Watson J Daniel M, Sama A

09:25 Lecture Theatre – Delegates to be seated

Session 7: Craniofacial Body and Orthognathic Maxillofacial Prosthetics. Chairman Mr Matthew Pilley

09:30 Materclass Lecture – If Carlsberg Made Articulators….
Mr Fraser Walker

10:00 Questions

10:05 Orthognathic Surgery Planning Using 3D Models Is This a Reality?
Mr Michael O'Neil

10:20 Pilot Study to Investigate the Production of Accurate Patient Assessment Models Using CAD/CAM and Rapid Manufacture
Mr Hitesh Koria

10:30 Lip Curl and Heal
Mr Peter Bowman

10:40 The Use of Silicone Pressure Masks for Treating Chronic Facial Lymphoedema and Experiences with the Mixpack System
Mr Gavin Carmichael

10:50 Questions

11:00 Scientific Poster's, Company Exhibition's with Tea and Coffee

Session 8: Orofacial Prosthetics. Chairman Miss Barbara Thomson

11:30 Masterclass Lecture – Orofacial Restoration: An Incremental Approach
Mr Mark Cutler

12:00 Questions

12:05 A Cost Effective and Efficient Alternative Magnetic Retention System for Facial Prosthetics – or –Screw That!
Mr David Morrison

12:20 Rehabilitating Mid Face Defects with Zygomatic Implants
Mr Peter Evans

12:35 Chair Side Diagnosis of Head and Neck Cancer – Todays Trends and Tomorrows Scope
Dr Supriya Kheur

12:50 Questions

13:00 Scientific Poster's, Company Exhibition's with Lunch

13:45 Lecture Theatre
IMPT Extraordinary General Meeting
Accounts for the Year End 31st December 2008
Annual Subscriptions Review – A Consultation Document – Honorary Treasurer
Annual Subscriptions Protocol – A Consultation Document – Honorary Registrar

Session 9: Ocular Prosthetics and Study. Chairman Mr Mark Townend

14:00 Masterclass Lecture – Ocular Prosthetics Overview and Developments
Mr Colin Haylock

14:30 Questions

14:35 Colour Change in Silicone Elastomers Cured by Different Techniques Following Weathering in Indian Climatic Conditions: An Innovative Clinical Trial and Laboratory Investigation
Dr Mohit Kheur

14:45 Change in Hardness of Silicone Elastomers Cured by Different Techniques Following Weathering in Indian Climatic Conditions: An Innovative Clinical Trial and Laboratory Investigation
Miss Tania Sethi

14:55 An Alternative Method of Retention to Traditional Gold Bar and Clips and Magnet Retained
Ear Prostheses
Mr Niall Murphy

15:10 Colour Stability of Pigments Used in the Fabrication of Maxillofacial Prosthetses
Mrs Ariane Farah, Miss Naimesha Patel

15:20 Questions

15:30 Scientific Poster's, Company Exhibition's with Tea and Coffee

Session10: Current and Future Issues. Chairman Miss Sarah Parkinson

16:00 Survey About Attitudes Opinions and Experiences of Maxillofacial Prosthetists and Technologists in The UK Toward Maxillofacial Silicone Prostheses
Mr Muhanad Hatamleh

16:10 'External Audit: What does your Service Do and What Does it Cost?'
Mr Mark Cutler

16:20 The Use of Silicone Gels in Prosthetic Rehabilitation
Mr Matthew Pilley, Mr Robert Whitehead

16:30 Questions

16:40 Masterclass Lecture – Maxillofacial Prosthetics – Issues and Controversy's
'Don't Get Me Started'
Mr Steve Worrollo

17:10 Questions

17:15 Close of Plenary Sessions and Congress
Miss Sarah Parkinson Chairman The IMPT

19:15 Shuttle coach departs from the Congress Hotel for Prize Giving Ceremony and Dinner

19:30 Reception Belfast W5 followed by Prize Giving Ceremony and Dinner
Traditional Irish music and dancing will take place during the evening

23:30 Shuttle coach departs to Congress Hotel

23:45 Late pay bar Congress Hotel

Saturday 12th September

Please check out from the Congress Hotel by 12:00

Abstracts

Thursday 10th September 2009

President of The IMPT
Ramsay-Baggs P

Session 1 Papers

Kearns A, Maxillofacial Prosthetist, Department of Maxillofacial Prosthetics, Queen Victoria Hospital NHS Foundation Trust, Holtye Road, East Grinstead, West SussexRH19 3DZ
adrian.kearns@qvh.nhs.uk
What are you talking about?
Since the first Maxillofacial Technicians Conference held at the Queen Victoria Hospital, East Grinstead in 1963, hundreds of lectures have been delivered.
This presentation gives an overview of the lectures and the lecturers themselves who have contributed to help make the congress into the international scientific meeting it is today.

The IMPT Travel Fellowship
Edwards B, Quinn S, Maxillofacial Prosthetist's, Department of Maxillofacial Prosthetics, Queen Victoria Hospital NHS Foundation Trust, Holtye Road, East Grinstead, West SussexRH19 3DZ
barry.edwards@qvh.nhs.uk
sarah.quinn@qvh.nhs.uk
An Eye on Namibia.
This presentation aims to describe how the IMPT Travel Scholarship funding awarded last year was used.The presenters travelled to Namibia to aid in improving an ocular prosthetic clinic which existed despite very limited funding. A description of the trip and subsequent recommendations for any members wishing to do something similar will be included.

Watson J, Consultant Maxillofacial Prosthetist, Nottingham University Hospitals Trust, Queens Medical Centre Campus, Maxillofacial Department, West Block B Floor, Derby Road, Nottingham, NG7 2UH
jason.watson@nuh.nhs.uk
'Show me the money*'; Accessing Allied Health Professions (AHP) and Healthcare Science (HCS) funding to support MPT training and development.*
MPT's should be aware of funding opportunities within their hospital Trust that are available to support training and development. Opportunities have always existed but the high profile of the Moderninsing Scientific Careers (MSC) program has made this more accessible. The programs are both flexible and contracted in design. Integration with these programs enabled us obtain £7640 worth of funding in the 08-09 financial year for training. These funding streams are audited and so your case of need has to be sound.

Session 2 Papers

Masterclass Lecture
Bibb R, Department of Design & Technology, Loughborough University, Leicestershire, LE11 3TU
r.j.bibb@lboro.ac.uk
An Overview of Current Rapid Prototyping Medical Modelling in the UK.
RP techniques have been used in Maxillofacial Laboratories in the UK since the mid 1990s. Since then many units have adopted the practice and many applications have become routine. This lecture aims to review the application of medical modelling activities in the UK's largest and busiest units to ascertain whether there is a consensus view on which applications should be conducted with medical

models and those areas where conjecture remains. In recent years costs have reduced and now that cases have been conducted in much greater numbers and the “novelty effect” has passed it is timely to review clinical applications of medical modelling rather than reporting research case studies. The lecture will contribute to the debate about the clinical benefits and cost effectiveness of medical modelling in the NHS.

Watson J, Kilburn P, Consultant Maxillofacial Prosthetist, Nottingham University Hospitals Trust, Queens Medical Centre Campus, Maxillofacial Department, West Block B Floor, Derby Road, Nottingham, NG7 2UH
jason.watson@nuh.nhs.uk

DMLS; The future of custom made cranioplasty design and manufacture.

Access to 3D models has revolutionised custom made cranioplasty manufacture. These models have reduced the length of time required for manufacture, improved the accuracy of the final implant and reduced theatre time. The direct write technology is now being employed directly in maxillofacial laboratories to extend there practice.

The technology has now moved on. Not only can 3D structures be built in gypsum and polymeric materials but metal including Chrome and now implant grade Titanium. This process is called direct metal laser sintering (DMLS).

The next step in cranial implant design and manufacture is to directly produce the custom made implant from the 3D data. This process has been documented by several units providing small facial (zygoma/orbit; Leicester) and mandibular implants (Sheffield). In these cases a cast titanium structure was employed. This limited the size of the implant and proved difficult to process. DMLS gives the advantage of being able to produce large complex shapes in an implant grade material.

A case study is described for reconstruction of a large frontal craniotomy. A custom made implant was produced using DMLS and the process outlined.

Richmond A J, Maxillofacial Prosthetist, Oral and Maxillofacial Prosthetics, Kings Mill Hospital, Mansfield Road, Sutton In Asfield NG17 4JL
andrew.richmond@sfh-tr.nhs.uk

Prosthetic Rehabilitation of Nasal Septal Defects.

The presentation will outline:

- Aetiology and prevalence of Nasal septal defects
- Impact of such defects on the patients health and quality of life
- Different treatment modalities
- Patient assessment
- Direct impression technique using soft silicone putty
- Indirect impression technique using CT data and Rapid Prototyping
- Obturator manufacture
- Fitting and follow up

Evans P LI, Consultant in Maxillofacial Prosthetics, Maxillofacial Laboratory, Morriston Hospital, Morriston, Swansea SA6 6NL
maxillo@btinternet.com

Development of a Custom Breast Prosthetic Service.

Achieving an acceptable fitting and aesthetic breast prosthesis following mastectomy is often difficult using commercially available prosthetics. Conversely, custom prostheses are challenging to construct due to impression taking and moulding of a large area. We explain how a custom Breast Prosthetic Service is being developed in South Wales in conjunction with the Breast Care and Lymphodaema Services. The use of surface scanning and rapid prototyping for moulding have enabled the development of a well fitting and aesthetically accurate prosthesis has been possible along with a light and simple moulding technique. The presentation will show results of five pilot cases and discuss gel and foam filled prosthetic options.

Watson J, Consultant Maxillofacial Prosthetist, Nottingham University Hospitals Trust, Queens Medical Centre Campus, Maxillofacial Department, West Block B Floor, Derby Road, Nottingham, NG7 2UH
jason.watson@nuh.nhs.uk

Facemaker Project: Development of a custom Computer Aided Design (CAD) solution for healthcare professionals to develop new services and improve outcomes for patients.

Various Computer Aided Design and Computer Aided Manufacture (CAD/CAM) software packages have been described in the design and manufacture of maxillofacial prostheses and medical devices (Mimics, Magics, GeoMagics, 3Matic). These are extremely sophisticated interfaces that require advanced understanding and training. Most of the functions of the software are not required by MPT's, so these skills are easily lost if the software is not used on a daily basis.

In conjunction with commercial partners Delcam, 3TRP and the University of Loughborough we have helped with the development of a custom made solution for MPT's. This utilises an advanced CAD tool but uses a simplified structured interface. It is hoped that providing MPT's with a simplified

Session 3 Papers

The BAOMS Lecture – Keynote Speaker

Flood T, Consultant Oral and Facial Surgeon, Odstock Centre for Plastic and Maxillofacial Surgery, Salisbury District Hospital, Odstock, Salisbury SP2 8BJ

Changing the Facial Image – The Salisbury Experience of Osseointegrated Implants for Dental and Facial Rehabilitation.

The implant programme at Salisbury was initiated in 1992. The regional development and evaluation committee gave "the strongest recommendation" for the development of this service on the basis of the improved quality of life offered to patients using implant techniques. I would like to present the evolution of our techniques and surgery at Salisbury for this vulnerable patient group.

Session 4 Papers

Masterclass Lecture

Bocca A P, Consultant in Maxillofacial Prosthetics, Maxillofacial Laboratory, Morriston Hospital, Morriston, Swansea SA6 6NL
alan.bocca@swansea-tr.wales.nhs.uk

Silicone Materials and Colour.

Maxillofacial Prosthetics deals with the anatomical, functional and aesthetic reconstruction of the head and neck using alloplastic materials as opposed to the patients' own tissues. The main aim of such prostheses is the restoration of form and function of a missing part of the face so that an individuals' features may be reconstructed.

Several colour matching systems have been developed which are based on artistic procedures. Other methods are based on internal colour characterisation. Irrespective of which colour matching method is employed they are all time consuming and the colour match difficult to reproduce.

One of the major problems encountered has been the change in colour of the prostheses over time. This has been witnessed clinically in soft silicone prostheses. This problem necessitates remaking the prosthesis at unacceptably regular intervals, resulting in excessive use of healthcare resources and patient disillusionment with the treatment.

This paper will discuss the current materials and colours used for prosthetic reconstruction, outlining their strengths and weaknesses and make recommendations for further research.

Millar K, Principal Maxillofacial Prosthetist, Regional Maxillofacial Laboratory, Neurology Building, Southern General Hospital, 1345 Govan Road, Glassow G5I 4TF
kirsty.1@hotmail.co.uk

Challenges in Maxillofacial Prostheses.

Modem techniques in maxillofacial prosthetics have resulted in significant advances in the quality of

facial prosthetic rehabilitation. Clinical and patient factors may limit the use or effectiveness of state of the art technology. This paper will discuss varied approaches available to the maxillofacial prosthetic team when faced with challenging clinical cases.

Löfborg K, Student Maxillofacial Prosthetist, Anaplastik Umeå AB, Glimmervagen 5A, SE - 907 40 UMEA, SWEDEN
karolin@anaplastik.com

A Study Concerning the Colour Stability of Facial Silicone Prostheses.

Any experienced maxillofacial prosthodontist or technologist is well aware of the poor colour stability of silicone prostheses. Is it because of the choice of silicone material, the colour stability of the pigments - or both?
This study concerns the colour stability of facial silicone prostheses. Specimens of two kinds of materials (Nusil LSR and Versasil), and two different colours (flesh and white) with colourless as a control of the silicone, in three different environments (in a weather-o-meter, in an environment similar to the weather-o-meter but dark, and a dark-dry environment) were examined in vitro.
Changes in colour appeared after a few days in the weather-o-meter, where the flesh-colour specimens exhibited the clearest fading.
How to handle the problems around colour change? I will present a few questions and reflections on the topic and give suggestions on how to minimize the aging.

Pilley M J, Specialist in Clinical Prosthetics, Maxillofacial Prosthetics, Leicester Royal Infirmary, Leicester LE1 5WW
matt@secondskin-uk.net

Spectromatch - useful tool or the definitive solution to colour matching silicone.

The aim of this study was to assess the Spectromatch Colouring system from a patients and prosthetists perspective. A random group of prosthesis patients were selected and supplied with two prostheses. One colour matched by the prosthetists eye and traditional colouring pigments. The other prosthesis using the colour spectrometer and Spectromatch pigments.
Once both prostheses had been made and fitted the patients were asked to complete a simple questionnaire regarding prosthesis A and B. Clinical Photographs were taken using different light sources to see the effects of metamerism and its impact on the finished result. The results and observations by both the Prosthetist and Patients regarding the system are very interesting and will hopefully lead to a more indepth study.

Session 5 Papers

Masterclass Lecture

Bergström K, Anaplastologist, Department of Otolaryngology, Sahlgrenska University Hospital, SE 413 45 Gothenburg, Sweden
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30 Years with Osseointegrated Facial Prostheses – History and Developments.

Bone-Anchored prosthetics have advanced the rehabilitation of patients with defects from cancer therapy, malformation or trauma. In 1979 the first patient was provided with an auricular osseointegrated craniofacial prosthesis. During 30 years the technique has developed and new possibilities for reconstruction has opened. 1983 the first child got fixtures for an auricular prosthesis. 26 years follow up and what happens when children grow up will be presented.
Teamwork and treatment planning is important for the final outcome of the restoration. Computer – aided surgical and prosthetic planning has further increased the possibility of optimizing osseointegration and implant position.
The functional and aesthetic rehabilitation of patients with combined extraoral and intraoral defects is more difficult and requires even more from the professional treatment team. Today we see both possibilities and limitations of current techniques for OI craniofacial prostheses. Future developments to further improve the rehabilitation and quality of life for our patients is what we are striving for.

Robinson G, Vocational Trainee Maxillofacial Prosthetist, Maxillofacial Laboratory, Hawthorne Suite, Worcestershire Royal Hospital Charles Hastings Way, WR5 1DD
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Construction of a Auricular Prosthesis with consideration for the incorporation of a Hearing Aid.

A technical overview in the construction of an implant retained Auricular Prosthesis and subsequent fitting of an In the Ear (ITE) ½ concha digital hearing aid.
The patient has had ablative surgery for squamous cell carcinoma of the pinna resulting in a changed appearance and subsequent loss of function because of the inability to wear the existing hearing aid.
Collaboration between MPT and Audiologist are required in the technical process resulting in modifications in the shape and design of the prosthesis to incorporate the hearing aid.

Brom J, Accredited Anaplastologist of the IASPE, Brom Epithetik, Mittermaierstrasse 25, 69115 Heidelberg, Germany
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Prosthetic rehabilitation of the area lower-jaw-maxilla and cheek.

The lecture presents a case of a 43 young Estonian woman with a large defect of the left side, lower-jaw-maxilla and cheek. The defect was a result by cancer-surgery.
Sugery reconstruction failed three times, so there was only prosthetic help for the woman from overseas.
The patient is accommodated by facial prostheses in two pieces which are fixed with dental prostheses, therefore it allows the patient to move her mouth.
The handicap of this work is that it has to remake every 3 months, cause the prosthetic silicone isn't stable against spittle – although, normal eating is not comfortable. Anyway, the patient is happy to have more than bandage.

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Magic Mushrooms.

This presentation is a qualitative analysis of custom-made osseointegrated implant abutments. This type of abutment fixture was first described over five years ago by Barry Edwards at the Queen Victoria Hospital, East Grinstead.
This study reviews the long-term successes of the custom-made design; including the perceived benefits for the patient and Maxillofacial Prosthetist compared with more commonly used 'bar and clip' designs for auricular prostheses.

Friday 11th September 2009

Session 6 Posters

P1 Brom J, Accredited Anaplastologist of the IASPE, Brom Epithetik, Mittermaierstrasse 25, 69115 Heidelberg, Germany
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Implant-retained and non-implant-retained partial orbital prostheses of the lower palpebra.

The poster presents two cases of patients with orbital defects where the surgeon didn´t remove the upper palpebra after tumour resection.
For the one patient there was a undercut retained prostheses made, for the other patient a prostheses was fixed by 3 Straumann Implants.
Both cases are shown step-by-step, the way of manufacturing.
The pros and cons of both techniques are presented. Both have advantages but the patient with the non-implant-retained work did not require any type of surgery.

P2 Bunn S, Principal Maxillofacial Prosthetist / Laboratory Manager, Maxillofacial Laboratory, Clinic 6, Outpatients Department, Royal Shrewsbury Hospital, Mytton Oak Rd, Shrewsbury, SY3 8XQ
samantha.bunn@sath.nhs.uk

A light-cured orthognathic wafer, an improvement on the 'norm'.

We describe a simple method of fabrication for a light-cured customised orthognathic wafer, to use during all types of orthognathic surgery.
The benefits of this process are the simplicity of construction and, ease of use during surgery. The materials and process used allow for a highly accurate fit over the dentition, and during use achieves complete self-retention. The technical process can easily be altered to allow for the incorporation of hooks and other surgically preferred alternatives.

P3 Bunn S, Principal Maxillofacial Prosthetist / Laboratory Manager, Maxillofacial Laboratory, Clinic 6, Outpatients Department, Royal Shrewsbury Hospital, Mytton Oak Rd, Shrewsbury, SY3 8XQ
samantha.bunn@sath.nhs.uk

The Shrewsbury Stent.

Reproducible patient positioning during fractionated conformal radiotherapy for intra-oral malignancy is problematic. The difficulty in reproducibly excluding non-target tissue from the irradiated field raises concerns of increased risk of radiation-related acute and late side effects, especially in the young and elderly.
We describe a simple method of fabrication of a customised oral radiotherapy stent to counter this problem. The potential benefits include the ability to deliver higher doses to the target tissue with a greater level of safety than has previously been possible. Adjacent non-target tissues additionally receive a reduced dose, minimising side effects and complications. The simplicity of construction and ease of use allows the individual to consistently return to the same jaw relationship during radiotherapy as assessed on verification CT scan.

P4 Dear R, Pilley M, Specialist in Clinical Prosthetics, University Hospitals of Leicester NHS Trust, Maxillofacial Prosthetics, Leicester Royal Infirmary,
Leicester LE1 5WW
matthew.pilley@uhl-tr.nhs.uk

Achieving the Optimum Fit First Time: Using Alginate Based Molding in the Provision of a Pressure Glove.

Lycra pressure gloves are used routinely to address scarring and oedema following hand trauma. Where therapy departments manufacture garments on-site, alterations can be made with the patient present to secure an optimal fit. Many units, however, rely on commercial manufacturers to make garments using an order form completed with the therapist's measurements.
Achieving a good anatomical fit can be a particular challenge where there is a deformity in the hand, such as an amputation.
This poster will use a case study to illustrate the use of alginate moulding to produce a positive hand cast, which is sent to the manufacturer with the therapists measurements. This results in an optimal fit first time, resulting in earlier treatment.
The therapists have found that the use of the mould in more challenging anatomical cases has negated the need to send garments back to the manufacturer for repeated alterations, thus saving time and money and gaining the earlier trust and confidence of the patient.

P5 Dovgalski L, Maxillofacial Prosthetist, Maxillofacial Laboratory, Morriston Hospital, Morriston, Swansea SA6 6NL
ldovgalski@hotmail.com

Design and Manufacture of Protective Sports Splints.

Protective sports splints are increasingly being used to allow sportsmen and women to

continue to play despite facial injuries such as fractured zygomatic arch. Our poster describes data acquisition, parameters, splint design and manufacture and protocols for wear.

P6 Eggbeer D, Evans P, Bocca A, Sugar A, Booysen G, Bibb R, Research Officer and Head of Medical Applications, The National Centre for Product Design and Development Research, (PDR) University of Wales Institute Cardiff, Western Avenue, Cardiff CF5 2YB
deggbeer-pdr@uwic.ac.uk

The Computer Aided Design and Rapid Manufacture of an Orbital Implant.

This poster presents a digitally-based method of designing and fabricating a patient-specific orbital floor and rim implant. The patient presented with asymmetry caused by a facial cleft. CT scanning and reconstruction software was used to generate a three-dimensional digital model of the bony anatomy. Computer sculpting software was used to digitally restore symmetry of the orbital region and an implant design was generated using Boolean subtraction from the patient's anatomy. Holes for fixation were then created and the data were exported for manufacture. Direct Metal Laser Sintering was used to fabricate the implant design in Ti64 alloy. The prosthesis was successfully implanted with no complications after a three month period. Suitability of the processes used are discussed and implication concluded.

P7 Heath D, Brown K, Maxillofacial Prosthetists, Russell's Hall Hospital, Dudley, West Midlands DY1 2HQ
david.heath@dgoh.nhs.uk

Lighter Weight Breast Prosthesis.

This custom made hollow silicone breast prosthesis offers women the chance of a prosthetic breast, which is lighter in weight and more aesthetically contoured and colour-matched than an of the shelf silicone filled prosthesis; contributing to re-building a woman's body image and emotional wellbeing.

P8 Hatamleh M M, Ployzois G, Silikas N, Watts D C, Biomaterials Research Group, School of Dentistry University of Manchester, Higher Cambridge Street, Manchester M14 5FH
muhanad.hatamleh@manchester.ac.uk

Effect of Extra-oral Aging conditionings on Mechanical properties of Maxillofacial Silicone Elastomer.

The purpose of this study was to investigate the effect of extra-oral human and environmental conditions on the mechanical properties (tensile strength and modulus, elongation, tear strength, hardness) of maxillofacial silicone elastomer.

P9 Hatamleh M M, Watts D C, Biomaterials Research Group, School of Dentistry University of Manchester, Higher Cambridge Street, Manchester M14 5FH
muhanad.hatamleh@manchester.ac.uk

Effect of extra-oral aging conditionings on colour stability of pigmented and un-pigmented maxillofacial silicone elastomer.

Maxillofacial prostheses require enhancement or replacement due to deterioration in their colour during service.

The purpose of this study was to investigate colour stability of pigmented and un-pigmented maxillofacial silicone elastomer exposed to different human and environmental aging conditions.

P10 Kings College London Distance Learning Unit, Centre of Flexible Learning in Dentistry, King's College London Dental Institute, Strand Bridge House, 138-142 The Strand, London WC2R 1HH
_MFPRdistance@kcl.ac.uk

Maxillofacial Prosthetic Rehabilitation MSc Distance Learning.

This 3 year taught programme commencing in February 2010 will be provided by the Unit

of Distance Learning; King's College London Dental Institute, for Maxillofacial Prosthetists to develop and demonstrate extended knowledge, understanding and advanced skills in the treatment of patients requiring prosthetic facial rehabilitation.
The course will cover a broad range of treatments for replacement of missing hard and soft tissues using traditional and advanced digital technologies, and a specific module on the psychological and social support required in facial rehabilitation for those living with head and neck cancer and facial disfigurement.
Two residential courses (7 and 10 days), in year one and two, will be at one of our training centres in London and Pune, India.

P11 Koria H, Watson J, Clark S, Barratt R, Trainee Maxillofacial Prosthetist and Healthcare Scientist, Nottingham University Hospitals Trust, Queens Medical Centre Campus, Maxillofacial Department, West Block B Floor, Derby Road, Nottingham, NG7 2UH
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Pilot study to investigate the production of accurate patient assessment models using CAD/CAM and Rapid Manufacture.

Accurate patient working and assessment models are an integral part of both Maxillofacial prosthetics and Orthodontics. In busy departments storage of these models can create a problem. According to the British Orthodontic Society, models must be retained for 11 years for potential legal examination. A pilot study was devised to evaluate the accuracy and reproducibility of 3D Rapid Manufactured (RM) models compared to a dental stone/plaster model.
Pre treatment and post treatment dental plaster casts were scanned using an 'Optimet' laser scanner. The data was processed and 3D models printed. Specific landmarks were chosen and measured on both the plaster casts and RM models, and the two directly evaluated for ease of landmark identification and dimensional accuracy
Comparisons were made between the measurements of plaster casts and RM models to identify any differences in mean measurements. This initial data did not conclusively show any measurement errors in 3D printed or traditional dental casts. The models where then subsequently split into four groups. Results show the accuracies in different planes though more errors were seen to occur in the lower pre-treatment models due to irregularities and insufficient detail.

P12 Mitchell B A, Watson J, Kilburn P Principle Maxillofacial Prosthetist, Nottingham University Hospitals Trust, Queens Medical Centre Campus, Maxillofacial Department, West Block B Floor, Derby Road, Nottingham, NG7 2UH
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Investigation into the manufacture of an improved facial burns splint for paediatric patients utilising 3dMDFace imaging, Facemaker software (Delcam) and Selective Laser Sintered (SLS) models (3TRPD).

The traditional method of manufacture of a facial burns splint at the early stage of injury requires taking a direct mould of the patient in theatre under a GA. Although the patient is usually having other surgical procedures carried out, the positioning on the inclined theatre table, the lack of muscle tone and the potential distortion errors in the mould compromises the final fit of the splint.
The 3dMD Face system is ideal for treating child patients. With a capture speed: ~1.5 milliseconds at highest resolution. Its close-range active stereo photogrammetry immediately eliminated the scan time challenges associated with our current Polhemus laser 3D surface scanner. The development of specific software to design and produce a final patient image (Facemaker) has improved the process of interpreting data in CAD/CAM and made it easier for the MPT to undertake this part of the process. An SLS model allows the chosen thermoplastic blank to be formed directly onto the 3D model of the patient.
The final splint had a more accurate/even surface contact. The splint was easier to fit to the

patient due to the closeness of the surface contact, very little 'pull' was required on the headgear attachment. Although this is study was limited to a single case, the process has been proven for more extensive use.

P13 Nacher-Garcia C, Kaur P, Consultant Maxillofacial Prosthetist, Craniofacial Prosthetics Unit, OMFS Dept. King's College Hospital NHS Foundation Trust, London,UK
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A Clinical Protocol to Colour Match Silicone Elastomers for Facial Prostheses Using the Spectromatch Digital System.

Digital colouring technology has evolved to assist the challenging process of colour matching facial prosthetics in silicone elastomers.
Evidence-based practice provides a framework for making clinical decisions on the basis of research findings and subsequently their application to individual treatments. In order to provide quality clinical practice to support treatment plans we need to practice under protocol procedures as a healthcare practitioners.
A clinical protocol for skin colour matching of silicone elastomers for facial prostheses using the Spectromatch system has been introduced at the Craniofacial Prosthetics Unit at King's College Foundation Trust.
This clinical protocol has showed that the Spectromatch system is a reproducible method to colour matching skin to silicone elastomers. It presents as a rapid and reliable system for the Maxillofacial Healthcare Practitioner clinical practice.

P14 Nacher-Garcia C, Short N, Kaur P, Connolly N, Clamp L Consultant Maxillofacial Prosthetist, Craniofacial Prosthetics Unit, OMFS Dept. King's College Hospital NHS Foundation Trust, London,UK
Guy's & St Thomas' NHS Foundation Trusts, Cleft Unit, London, UK
cristina.nacher@kch.nhs.uk

The Role of the Maxillofacial Prosthetist within the Management of the Orthognathic Patient: A Multidisciplinary Team Approach.

The successful management of the orthognathic patient involves a multidisciplinary team approach of specialist healthcare professionals.
The role of the Maxillofacial Prosthetist & Technologist (MPT) as a healthcare professional is to provide an orthognathic clinical–technical service for the model surgery planning and its developing protocols, including patients' records taking, teaching support, data collection and auditing of service.
The Craniofacial Prosthetics Unit at King's College Foundation Trust provides a comprehensive technical and clinical services provision within five orthodontics-surgical teams at multi-centre orthognathic joint clinics.
We review the role of the MPT Healthcare Practitioner within the management of the orthognathic patient with the clinical-technical protocols; and present the data collection and service audit from the multi-centre units at King's, Guy's and Cleft Services NHS Foundation Trusts.

P15 Marshall G, Newsam D, Deans F, Maxillofacial Prosthetist, University Hospitals of Leicester NHS Trust, Maxillofacial Prosthetics, Leicester Royal Infirmary,
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Obturator Construction Ustilising Hollow Box Techniques adapted to produce a Hollow Alveolar Ridge for Anatomical Reconstruction and Weight Reduction.

The aim of an obturator is to restore normal oral anatomy, function and seal. Conventional Hollow box Obturators restore anatomical form but can be bulky. Adaptation of this obturator construction technique has been applied to produce a prosthesis with hollow ridges, restoring normal oral anatomy whilst reducing weight.

P16 Watson J, Daniel M, Sama A Consultant Maxillofacial Prosthetist, Nottingham University Hospitals Trust, Queens Medical Centre Campus, Maxillofacial Department, West Block B Floor, Derby Road, Nottingham, NG7 2UH
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CT based 3 Dimensional frontal sinus (FS) templates in osteoplastic flap (OPF) surgery.
Delineation of the FS extent is a crucial step in OPF surgery. Several techniques have been described such as Caldwell radiographs, controlled bur holes, sinus probing, transillumination and image guidance systems (IGS). IGS is seen as the gold standard however it is not universally available. In contrast most large ENT departments will have access to a specialist MPT. We describe a technique for utilising emerging MPT skills to develop custom surgical planning solutions.

Session 7 Papers

Masterclass Lecture
Walker F S, Consultant Maxillofacial Prosthetist, Regional Maxillofacial Laboratory, Neurology Building, Southern General Hospital, 1345 Govan Road, Glasgow G5I 4TF
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If Carlsberg made articulators…
Although commonly used, face bow recordings and semi-adjustable articulators for Bi-maxillary osteotomy planning have inherent anatomical faults in design. This results in unseen and unwanted movements being incorporated in the model surgery. These errors will be transferred to the intra operative occlusal re-positioning wafers which subsequently will be transferred via the wafers to the patient. These faults can be corrected with a radical change to the accepted methods of model surgery planning. The research which led to these conclusions will be presented with a revised method of model surgery which improves the patient treatment outcome.

O'Neil M, Principle Maxillofacial Prosthetist, Regional Maxillofacial Laboratory, Neurology Building, Southern General Hospital, 1345 Govan Road, Glassow G5I 4TF
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Orthognathic Surgery Planning Using 3D Models Is This a Reality?
The aim of this lecture is to consider the possibilities of using correctly proportioned 3D models for orthognathic surgery planning. The benefits of which could possibly overcome the pitfalls associated with semi adjustable articulators and improve the accuracy of surgical prediction and outcome.

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hitesh.koria@nuh.nhs.uk
Pilot study to investigate the production of accurate patient assessment models using CAD/ CAM and Rapid Manufacture.
Accurate patient working and assessment models are an integral part of both Maxillofacial prosthetics and Orthodontics. In busy departments storage of these models can create a problem. According to the British Orthodontic Society, models must be retained for 11 years for potential legal examination. A pilot study was devised to evaluate the accuracy and reproducibility of 3D Rapid Manufactured (RM) models compared to a dental stone/plaster model.
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Bowman P A, Consultant Maxillofacial Prosthetist, Oral and Maxillofacial Surgery Laboratory, Level 5, West Block, Ninewells Hospital, Dundee DD1 95Y
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Lip, Curl and Heal.

This lecture outlines the development and construction of a patient user friendly lip splint. It is used in retaining a pharmaceutical cream, (Imiquamod) in location on the lip vermillion in the treatment of lip actinic dysplasia. This treatment has proved successful and the splint is now referred to as the, "Dundee" splint.

Carmichael G, Principal Maxillofacial Prosthetist / Laboratory Manager, East Lancashire Hospitals NHS Trust,
Maxillofacial and Orthodontic Laboratory, Burnley General Hospital, Casterton Avenue, Burnley BB10 2PQ
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The Use of Silicone pressure Masks for treating Chronic facial Lymphoedema and experiences with the Mixpack System.

Chronic facial lymphoedema is a midline lymphoedema often associated with acne/rosacea. It is a rare condition and is difficult to treat by conventional methods. The optimal treatment is by the application of manual lymph drainage however this is difficult to achieve on the face and "off the shelf" balaclave type pressure garments do not give the degree of fit necessary to achieve this. This lecture briefly outlines the aetiology and treatment of facial lymphoedema and reviews the available literature. It will also detail the construction of silicone pressure masks using the "Mixpack" system and report the treatment and outcome of one case.

Session 8 Papers

Masterclass Lecture

Cutler M B, Consultant Maxillofacial Prosthetist, Department of Maxillofacial Prosthetics, Queen Victoria Hospital NHS Foundation Trust, Holtye Road, East Grinstead, West Sussex RH19 3DZ
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"Orofacial restoration: An Incremental Approach"

Following surgery to remove diseased tissue, the head & neck cancer patient may require prosthetic support to restore function and appearance. Between January 2000 and January 2009, ninety one maxillectomy cases required two hundred and twenty three orofacial prostheses to be fitted by Maxillofacial Prosthetists at East Grinstead. Drawing on this, and previous experiences, this paper will attempt to outline an approach, and a demi-formal timetable, for prosthetic rehabilitation beginning with pre-operative requirements through to an optimal restorative outcome. This paper will also address some of the technical, clinical and psychological complications associated with orofacial prosthetic rehabilitation and the use of peri-operative splints, maxillary obturators, therapeutic devices and sectional prostheses.

Morrison D C, Anaplastologist, Sunnybrook Health Sciences Centre -Odette Cancer Centre
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A Cost-Effective And Efficient Alternative Magnetic Retention System For Facial Prosthetics – or – Screw That!

This presentation illustrates a clinical case whereby a magnetic-retention system was deemed necessary for retaining an orbito-nasal prosthesis in conjunction with a pair of spectacles. The presentation will demonstrate that expensive, commercially supplied magnetic retention systems are not necessarily a prerequisite for effective treatment and show how an alternate, novel and inexpensive system was devised and successfully completed. The presentation demonstrates the problem-solving aspects, all stages of technical construction and completion of the case.

Evans P LI, Consultant in Maxillofacial Prosthetics, Maxillofacial Laboratory, Morriston Hospital, Morriston, Swansea SA6 6NL
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Rehabilitating Mid Face Defects with Zygomatic Implants.

Siting implants for prosthetic retention in the mid face region can be difficult due to a lack of suitable bone, especially following radiotherapy. The team at Morriston has used zygomatic implants to overcome this problem with good results the presentation audits 18 cases and explains planning, stent design, surgery and prosthetic rehabilitation.

Kheur S, Oral Pathologist, Plot no. 170, Sector No. 24, Pradhikaran, Nigdi, Pune – 411 044, Maharashtra, INDIA
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Chair Side Diagnosis Of Head & Neck Cancer- Today's Trends And Tomorrow's Scope.

Head & Neck cancer is common and remains the most debilitating and disfiguring of all malignancies. The role of early diagnosis and treatment cannot be overemphasized.

Increased knowledge of malignancies has led to newer options for early diagnosis of cancer so that we can nip it in the bud. While some techniques require sophisticated tests, some can be predictably used chairside. Chairside procedures can vary from simple Toludine Blue application to Exfoliative Cytology to the use of modern devices like Valscope. Cancer predictive advances like Sentinel node biopsy can aid in gauging the extent of tumours.

Considering the rate of recurrence, these simple diagnostic aids can also be employed following the use of prostheses to quickly determine if malignant changes are setting in the underlying tissues. This presentation discusses the current and future trends in chairside diagnosis of cancer which would aid every health care professional.

Session 9

Masterclass Lecture

Haylock C, Consultant Maxillofacial Prosthetist
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Ocular Prosthetics Overview and Developments.

An overview of ocular prosthetics identifying new developments in painting and colour matching. To review the service developments overseas and problems that arise.

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mkheur@gmail.com

Colour Change In Silicone Elastomers Cured By Different Techniques Following Weathering In Indian Climatic Conditions: An Innovative Clinical Trial And Laboratory Investigation.

Colour change, is the main reason for remaking prostheses. As a rapidly growing field in India, it is necessary to study the effect of the Indian climate on the colour of silicones. Two commonly used materials M511(10:1 silicone) and Z004 (1:1 silicone) were studied using standardised research protocol to compare the colour changes over time. The weathering of samples was done in controlled laboratory situation and also in an innovative clinical trial using human volunteers. The authors also studied whether the heat or cold curing of silicone made a difference to the colour change. The research threw up some interesting results that can provide us future directions.

The presentation also includes a follow up to the author's lecture in Leeds, with a report of the collaborative efforts between the IMPT and the Rangoonwala Institute, Pune towards kick-starting, advancing Maxillofacial Prosthetic training in the Indian subcontinent via numerous patient treatment courses and other initiatives.

Sethi T, 3rd year BDS Student M. A Rangoonwala Dental College and Research Centre, Azam Campus, Pune, INDIA
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Change In Hardness of Silicone Elastomers Cured By Different Techniques Following Weathering In Indian Climatic Conditions: An Innovative Clinical Trial And Laboratory Investigation.

Silicone prostheses are replaced periodically due to deterioration of physical properties. The literature reports the effect of the climatic conditions on these changes, but not the effect of the curing technique (heat or self cured). The warm, humid climate in the Indian subcontinent where the author hails from may also affect the degradation rate

Two popular silicone elastomers, M511 (10:1 Silicone) and Z004 (1:1 Silicone) were used to make standardised samples of each material. Half the samples of each were made by heat curing; the others were self cured. The samples were divided into a Control group (No weathering), Group A (weathered directly in atmosphere) and Group B (weathered as an Innovative Clinical trial using human volunteers). Hardness changes over time were determined and interpreted using a computer driven, sensitive IRHD instrument . The research produced interesting results that open up numerous questions and provide directions towards manipulation of silicones in daily practice.

Murphy N, Chief Maxillofacial Technician, National Maxillofacial Unit, St.James`s Hospital, Dublin 8, Ireland.

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An Alternative method of retention to traditional gold bar & clips and magnet retained ear prostheses.

- The lecture will outline the fabrication of a screw on ear prosthesis.
- Present photos and video demonstration of alternative system in use.
- Outline advantages of this system over existing traditional methods.
- Demonstrate benefits to Maxillofacial Technicians and Patients.
- Address hygiene issues.
- Address stress on implant issues associated with gold bar & clip retention.
- The presentation will also feature patient feedback.

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Colour Stability of pigments used in the fabrication of Maxillo-facial Prostheses.

The aim of this study was 1) to determine which of two available pigment systems (Spectromatch and Principality) was the most colour stable, and demonstrate which pigments from the two systems showed the greatest colour stability over a period of 1000 hours, and 2) inorganic pigments were coated with an organo-functional silane in order to achieve a chemical bond between pigments and elastomers, thus prolonging the colour stability of facial prostheses. All samples were tested in a Q-Sun weathering chamber at 40ºC which was equivalent to Florida sunlight. Spectrophotometry was used to measure colour difference values, and were expressed as ∆E.

Sesion 10 Papers

Hatamleh M M, Biomaterials Research Group, School of Dentistry University of Manchester, Higher Cambridge Street, Manchester M14 5FH

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Survey about attitudes, opinions, and experience of maxillofacial prosthetists and technologists in the UK toward maxillofacial silicone prostheses.

The aim of this study was to investigate attitudes, opinions, and experience of maxillofacial prosthetists and technologists (MPTs) in the UK towards several aspects related to maxillofacial silicone prostheses.

A “closed & partial-closed ended questions” questionnaire was carried out and distributed to 220 MPTs in the UK. demographics; maxillofacial prostheses (types, retention, and longevity); silicone elastomers (mixing method, coloring, and commercial types); digital technologies (types and

reflection); challenges of fabricating maxillofacial prostheses; and non-professional information. After collecting the responses, parts of the data were analysed using chi-square test at the 0.05 level of significance.

Cutler M B, Consultant Maxillofacial Prosthetist, Department of Maxillofacial Prosthetics, Queen Victoria Hospital NHS Foundation Trust, Holtye Road, East Grinstead, West Sussex RH19 3DZ
mark.cutler@qvh.nhs.uk

"External Audit: What does your Service Do and What Does it Cost?"

In recent years, and following increased spending by HM Government, the economic environment of the NHS has been subject to almost continual change. Contractual mechanisms, geographic areas and professional boundaries have been changed to cut waiting times and account for the increased money being spent. Alongside orthodox internal management scrutiny, the Maxillofacial Prosthetics Department at East Grinstead has been the subject of two independent external audits carried out by 'blue-chip' business management companies. This paper will attempt to outline the lessons learned, feedback received and changes made, within the maxillofacial prosthetic department at East Grinstead, following all-encompassing and thorough investigation by two commercial organizations.

Pilley M J, Specialist in Clinical Prosthetics, Maxillofacial Prosthetics, Leicester Royal Infirmary, Leicester LE1 5WW
Whitehead R, Clinical Prosthetics Specialist, Artizan
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The Use of silicone gels in Prosthetic Rehabilitation.

The use of silicone gels in Prosthetic Rehabilitation is still somewhat limited. This paper outlines some new methods of mould fabrication, gel prosthesis construction and case studies. The clinical effectiveness and patient satisfaction of gel filled prostheses will be highlighted with audited results of the last three years.

Masterclass Lecture

Worrollo S, Consultant Maxillofacial Prosthetist, Maxillofacial Prosthetics Department, Maxillofacial - University Hospitals Birmingham NHS Foundation Trust, Queen Elizabeth Hospital, Queen Elizabeth Medical Centre, Birmingham B15 2TH
steve.worrollo@uhb.nhs.uk

Maxillofacial Prosthetics – Issues and Controversy's
"Don't get me started "

We are working in a time of constant change from reforms in the delivery of healthcare, development of new technologies, advances in surgical practice, and developments in medicine. All of these directly or indirectly have implications on our practice and the way we organize the delivery of our services. Understanding the impact of change and how to plan to accordingly is vital in maintaining and developing services.

There are opportunities for expansion in some areas as well as a diminishing need for aspects of our work which has been eliminated by changes in techniques and alternative methods of treatment.

It is vital that along with delivering a highly competent and efficient service that departments are managed to compliment the services provided by individual trusts. This along with meeting the needs of patients is of paramount importance. Examples of changes which have already occurred will be presented with strategies for coping with the ongoing and future changes in direction.

Our inclusion as specialty into Healthcare Science will give order and direction into career structure and the title of Consultant to some but what does it mean?

Will present a selection of "new patients" to be discussed and rational for potential treatment options to decide a definitive plan.

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The President and Council of The Institute of Maxillofacial Prosthetists and Technologists would like to express their gratitude and thanks to the following Commercial Organisations who have supported this Congress.

Please use the time provided in the programme to visit their exhibits and read their literature.

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