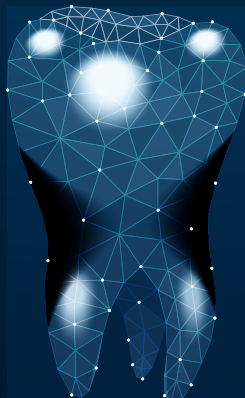


12TH EDITION OF INTERNATIONAL CONFERENCE ON DENTISTRY AND ORAL HEALTH

**SEPTEMBER 28-30, 2026
LONDON, UK**



“Global Perspectives in Dentistry: Innovation to Impact”



IN-PERSON:

Delta Hotels Heathrow Windsor
Ditton Rd, Langley, Slough SL3 8PT,
United Kingdom

VIRTUAL:

British Summer Time (BST)

12TH EDITION OF

INTERNATIONAL CONFERENCE ON

DENTISTRY

AND ORAL HEALTH

HYBRID EVENT
28-30
SEPTEMBER 2026

BOOK OF
ABSTRACTS



Index

Index

Keynote Speakers	4
Welcome Messages	6
About Magnus Group	20
About ICDO 2026	21
About CE Accreditation	22
Table of Contents	11
Keynote Presentations	23
Oral Presentations	41
Poster Presentations	161

Keynote Speakers

Keynote Speakers



Steven J Traub

American Institute of Oral Biology,
United States



Zvi G. Loewy

New York Medical College, United States



Preetinder Singh

Academy of Oral Surgery, United States



Theresa P Chiang

Canada-China Child Health Foundation,
Canada



Christopher Turner

Spacemark Dental, United Kingdom



Laurindo Moacir Sassi

Erasto Gaertner Hospital Cancer Center and
Mackenzie Evangelical University Hospital,
Brazil

Keynote Speakers



Uri Zilberman

Barzilai Medical University Centre,
Ben-Gurion University of the Negev, Israel



Jaap Boehmer

Rijnstate Hospital Arnhem, Netherlands



Ali Al Kaissi

National Ilizarov Medical Research Center for
Traumatology and Orthopaedics,
Russian Federation



Sergey Suchkov

N.D. Zelinskii Institute for Organic Chemistry
of the Russian Academy of Sciences,
Russian Federation



Hariharan Ramakrishnan

Tagore Dental College and Hospital,
The TN Dr. M.G.R. Medical University, India



Emre Sancakli

Eyes of AI, Turkey



Welcome Message

Preetinder Singh

Academy of Oral Surgery, United States

Dear Delegates,

It is my great pleasure to extend a warm and distinguished welcome to all delegates, eminent speakers, researchers, academicians, clinicians, and dental professionals attending the 12th Edition of the International Conference on Dentistry and Oral Health in London, UK.

This prestigious gathering provides a remarkable platform for the global dental community to come together, exchange knowledge, share transformative research, and explore the innovations shaping the future of dentistry and oral healthcare.

Under the inspiring theme Global Perspectives in Dentistry: Innovation to Impact, the conference reflects the rapidly evolving landscape of modern dentistry—where scientific discovery, digital technologies, artificial intelligence, regenerative approaches, precision dentistry, and clinical excellence are converging to create meaningful impact on patient care.

Beyond scientific presentations and professional discussions, this conference represents an opportunity to build international collaborations, inspire young researchers, strengthen academic networks, and translate innovation into practical solutions for better oral and systemic health.

As dentistry continues to move from conventional treatment toward prevention, precision, personalization, and prediction, platforms such as this are essential for shaping a more evidence-based, technology-driven, and patient-centered future.

I warmly welcome you all to London and look forward to an intellectually enriching and inspiring scientific experience.

Let us connect knowledge with innovation, innovation with clinical excellence, and clinical excellence with meaningful impact.

Welcome to London. Welcome to the future of Dentistry.

Welcome Message



Steven J Traub

American Institute of Oral Biology, United States

Dear Attendees of the Conference,

Both near (in person) and far (virtual), welcome to the 12th Edition of the Magnus Group International Conference on Dentistry and Oral Health (ICDO). Year after year this meeting just gets better and better with up-to-date clinical information and research relative to all fields of dentistry for general and specialty practitioners alike. As an oral and maxillofacial surgeon this meeting keeps me in touch with worldwide state-of-the-art research and dental treatment modalities that I would otherwise have no knowledge of. And the same applies to general practitioners keeping informed by their colleagues and various dental specialists. Hopefully, you will enjoy this meeting and the camaraderie that comes along with an excellent learning experience and opt to return again next year.

Welcome Message



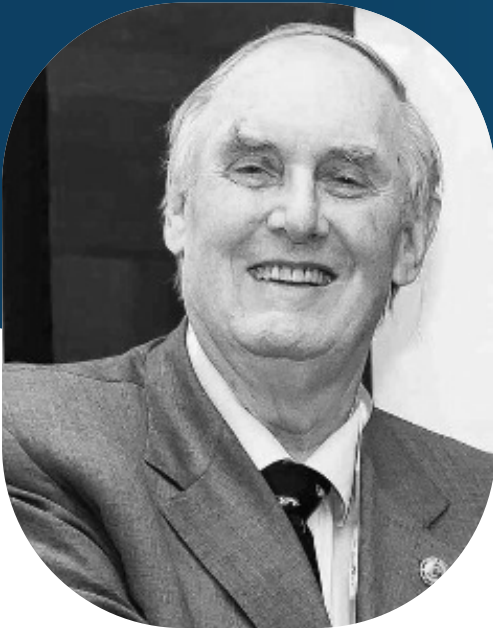
Theresa P Chiang

Canada-China Child Health Foundation, Canada

Dear Participants of ICDO 2026,

It is a pleasure for me to welcome you to the International Conference on Dentistry and Oral Health in London. This conference brings together people from different fields and various viewpoints, interested in the areas of advances in Dentistry and oral health. In a world of changing climate – as well as changing perception of information – it is the responsibility of all of us to uncover and evaluate the advances in these areas. ICDO gives us the opportunity of learning and sharing knowledge and with my own focus in maternal and child health many other topics will be presented and should lead to inspiring discussions. Mutual collaborations will be initiated at the conference, and this will pave the way to future scientific progress. Situated in the city of London, it will stimulate scientific exchange between the participants by the lively atmosphere of this exciting city. Being an organizing committee member I look forward to meeting you in London.

Welcome Message

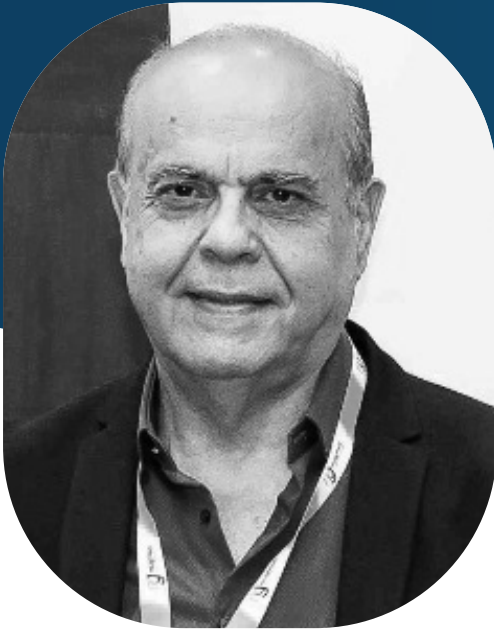


Christopher Turner

Spacemark Dental, United Kingdom

Dear Conference Participants,

It is my great pleasure to welcome you to the 12th Edition of the International Conference on Dentistry and Oral Health, taking place in the vibrant city of London, UK, from September 28–30, 2026. I am delighted to present my lecture entitled Occlusion and Implants, a topic that is gaining increasing attention as a possible factor in the development of peri-implantitis. Recent experimental studies suggest that even minor occlusal discrepancies may contribute to implant complications, highlighting the importance of prevention through accurate occlusal management and a sound understanding of periodontal ligament function during the aging process. During my presentation, methods of ensuring occlusal accuracy and improving long-term implant success will be discussed. I hope this conference provides valuable opportunities for professional growth, meaningful scientific exchange, and collaboration, while also allowing you to enjoy the rich cultural experience that London has to offer. Thank you for your participation and enthusiasm, and I wish you an inspiring and enjoyable conference experience.



Welcome Message

Ali Al Kaissi

National Ilizarov Medical Research Center for
Traumatology and Orthopaedics, Russia

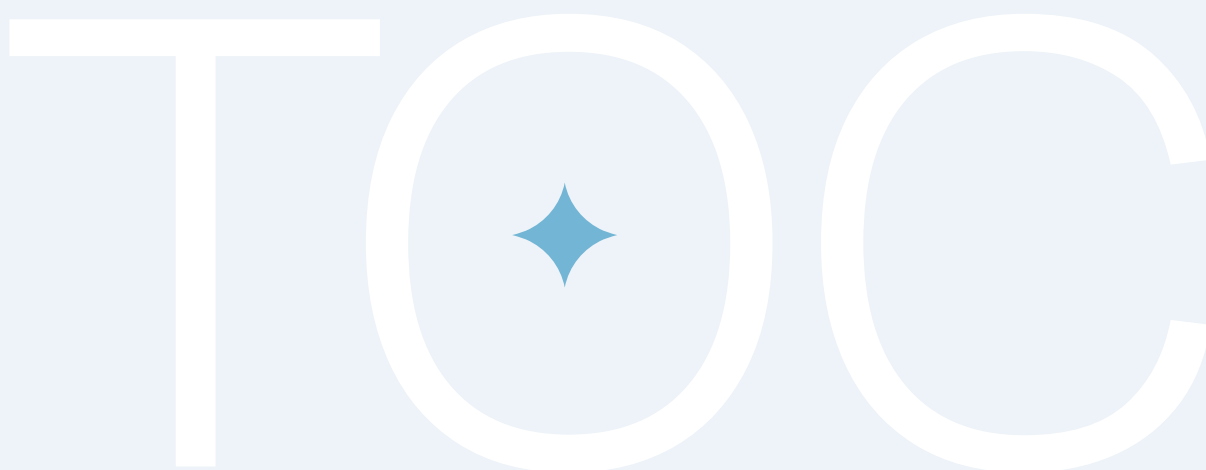
Dear Colleagues,

It is my great pleasure to welcome you to attend the session entitled: Cutaneous, Cranial, Skeletal and Dental defects in patients with Goltz syndrome for the 12th Edition of International Conference on Dentistry and Oral Health 2026.

The aim of my keynote lecture is to clarify that patients who were given false diagnosis of certain long term craniofacial, dental, skeletal or extra-skeletal abnormalities have been unfortunate.

When a certain medical discipline fails to identify correct diagnosis, this sort of malpractice is often the result of insufficient knowledge and experience. False diagnosis under what's called idiopathic can easily lead to a long-term morbid or mortal complication. The impact on the patient's life and their families can be devastating. Misdiagnosis has been the core of discussions in a high number of studies worldwide. International studies focused mainly on the most common diagnostic errors which are correlated with vascular diseases, myocardial infarction, stroke, as well as with less common diseases such as endocarditis, meningitis and encephalitis. The purpose of my lecture is to enhance the conception that chronic dental abnormalities are strongly correlated to multisystem pathologies. Thereby, etiological understanding is a fundamental tool for proper and profound management.

Table of Contents



Title: Conscious sedation vs. general anesthesia — Which one to choose? Afroz Alam Ansari, King George's Medical University, India	42
Title: Periodontal disease as a modifiable inflammatory risk factor for cardiovascular disease: A systematic review of clinical and biomarker evidence Akshay Keerthy, Harvard University, United States Mick Nagra, The Governor's Academy, United States Dylan Nagra, The Governor's Academy, United States	162
Title: Cutaneous, cranial, skeletal, and dental defects in patients with Goltz syndrome Ali Al Kaissi, National Ilizarov Medical Research Center for Traumatology and Orthopaedics, Russian Federation	24
Title: The restorative management of an adolescent patient with severe hypodontia utilising a digital workflow Alisha Patel, Eastman Dental Hospital, United Kingdom	44
Title: The management of severe toothwear with composite injection moulding utilising a digital workflow Alisha Patel, Eastman Dental Hospital, United Kingdom	164
Title: MRONJ (medication-related osteonecrosis of the jaw) and ORN (osteoradionecrosis): Referral or management in primary care? Navigating guidelines in the context of long waiting lists Alisha Sagar, University Hospital Southampton, United Kingdom	46
Title: Evaluation of effectiveness of chromotherapy as behavior guidance technique in children aged 6–12 years for management of oral diseases: A randomized controlled trial Amitha H A, V.S. Dental College and Hospital, India	48

Table of Contents

Title: #Wisdom Teeth: Has the prominence of newer social media platforms increased the reliability of wisdom-tooth related content?	50
Amy Amanfu, Barts Health NHS Trust, United Kingdom	
Title: Safety and effectiveness of propofol sedation for oral surgery procedures	52
Anushka Karandikar, Birmingham Dental Hospital, United Kingdom	
Title: Managing the unexpected: An insight into supernumerary teeth	54
Bahar Gharooni-Dowrani, Guy's and St Thomas' NHS Foundation Trust, United Kingdom	
Title: Imaging modalities in impacted tooth assessment: A review of CBCT (cone beam computed tomography) and parallax techniques	166
Bahar Gharooni-Dowrani, Guy's and St Thomas' NHS Foundation Trust, United Kingdom Alisha Sagar, University Hospital Southampton, United Kingdom	
Title: Unlocking the power of saliva: Strategies for caries management and prevention	56
Beatriz Fleitman, Private Practice, Israel	
Title: Case series of atypical presentations of ameloblastoma	57
Ben Spillane, King's College Hospital NHS Foundation Trust, United Kingdom	
Title: Justification of flumazenil in a tertiary oral surgery centre	172
Ben Spillane, King's College Hospital NHS Foundation Trust, United Kingdom	
Title: Agents of change: How dental hygienists can drive ecofriendly prevention and early intervention	58
Brittany Cox, O'Hehir University, United States	
Title: From compliance to commitment – behavior change strategies for lasting oral health outcomes	60
Brittany Cox, O'Hehir University, United States	
Title: Let's get things straight: A quality improvement project to assess the orientation of upper standard occlusal radiographs prior to the management of ectopic maxillary teeth	62
Camille Danielsen, Royal Gwent Hospital, United Kingdom	
Title: Assessing appropriate triaging for domiciliary referrals: A clinical audit	173
Camille Danielsen, Royal Gwent Hospital, United Kingdom	
Title: Oral syphilis with microscopic features suggestive of lymphoproliferative disorder: A case report	64
Charles Stewart-Syme, University of Liverpool, United Kingdom	

Table of Contents

Title: Atypical facial pain (AFP) – A mistaken diagnosis Christopher Turner, Spacemark Dental, United Kingdom	26
Title: Occlusion and implants Christopher Turner, Spacemark Dental, United Kingdom	28
Title: Immediate implant placement in the anterior maxilla: A step-by-step approach for esthetic predictability Djadem Belmokre, Central Military Hospital of Algiers, Algeria	168
Title: Platelet-rich fibrin in implant dentistry: Clinical applications and regenerative potential Djadem Belmokre, Central Military Hospital of Algiers, Algeria	170
Title: A rare presentation of Plasma Cell Gingivitis (PCG) Emily Waters, East Suffolk and North Essex NHS Foundation Trust, United Kingdom	66
Title: An atypical oral presentation of pityriasis lichenoides chronica (PLC) Emily Waters, East Suffolk and North Essex NHS Foundation Trust, United Kingdom	175
Title: Artificial intelligence (AI) in dentistry: Overcoming diagnostic challenges in modern practice Emre Sancakli, Eyes of AI, Turkey	29
Title: Adult tongue rhabdomyosarcoma (RMS): A rare case report and review of diagnostic and therapeutic challenges Gianne Williams, Queen Victoria Hospital, United Kingdom	177
Title: The great masquerade: Chicken or the egg—endo or perio? Gulnar Dara Sethna, Government Dental College & Hospital, India	68
Title: Evaluation of periodontal healing in patients with stage 3 and 4 periodontitis: Long-term multivariate analysis Gustavo Feser, National University of Rosario, Argentina	70
Title: Alternative treatment methods using conventional and cortical implants in partially edentulous arches Hariharan Ramakrishnan, The Tamil Nadu Dr. M.G.R. Medical University, India	31
Title: Targeted oral health promotion in children with additional needs: Experiences from a school-based outreach programme Hunayda Abdulmula, Leeds Teaching Hospitals NHS Trust, United Kingdom	76

Table of Contents

Title: Surgical management of macroglossia in Beckwith– Wiedemann syndrome (BWS): A longitudinal, multidisciplinary care pathway	179
Hunayda Abdulmula, Leeds Teaching Hospitals NHS Trust, United Kingdom	

Title: Amlodipine-associated gingival overgrowth: A multidisciplinary periodontal management approach	72
Houda El Ayachi, Sidi Mohamed Ben Abdellah University, Morocco	

Title: When conservative periodontal therapy is enough: Complete resolution of pregnancy-associated gingival enlargement	74
Houda El Ayachi, Sidi Mohamed Ben Abdellah University, Morocco	

Title: Facial soft-tissue injuries associated with dental trauma: A decision-making framework for dental practitioners	78
Ibrahim Ali, Manchester University NHS Foundation Trust, United Kingdom	

Title: Utilising artificial intelligence (AI) systems to enhance the consenting journey of orthognathic patients	80
Ibrahim Rana, Cwm Taf Morgannwg University Health Board, United Kingdom	

Title: Prevention in medicine, especially in the field of dentistry in the Netherlands	33
Jaap Boehmer, Rijnstate Hospital Arnhem, Netherlands	

Title: Interrelationships between orthodontics, orofacial function, airway, sleep, and posture	82
Karina Dobрева, Medical University – Varna, Bulgaria	

Title: How A.I. has helped stop the dental burnout epidemic	85
Kristie Kapp, Ebitdent.co, United States	

Title: Global dental outreach in Sri Lanka: Education, screening and multi-disciplinary collaborations	87
Lance Lesterpearson, Royal Free London NHS Foundation Trust, United Kingdom	

Title: Management of missing maxillary lateral incisors in hypodontia: Clinical consideration and treatment pathways	181
Lance Lesterpearson, Royal Free London NHS Foundation Trust, United Kingdom	

Table of Contents

Title: Restorative management of maxillary incisors in a postradiotherapy patient Lucy Bennett, Birmingham Dental Hospital, United Kingdom	89
Title: Retention coordination after orthodontic-restorative treatment: A two-cycle audit Lucy Bennett, Birmingham Dental Hospital, United Kingdom	183
Title: The mobile mouth: Smart apps in modern periodontology Madhulika Banerjee, Vishnu Dental College, India	91
Title: Analysis of osteotomy distance and other predictors of osseous union following mandibular reconstruction with fibula free flap (FFF) Maged Ali Hasan Al-Aroomi, Central South University, China	93
Title: The oral microbiome in clinical practice: Understanding dysbiosis and the case for integrative assessment Marta Ciechonska, Salient Bio, United Kingdom	95
Title: Decompression as a conservative strategy for extensive odontogenic cystic lesions: A case series Marwa Abdalgaffar, NHS Fife, United Kingdom	97
Title: Multifactorial management of pediatric orofacial granulomatosis (OFG): Associations with periodontal pathogens and allergic predisposition Masaki Minabe, Tokyo Dental College, Japan	99
Title: MTA (mineral trioxide aggregate) pulpotomy for deep caries in MIH (molar incisor hypomineralization)- affected first molars: Clinical benefits Mihoubi Hicham, University of Medical Sciences of Algiers, Algeria	185
Title: Effect of collagen plug application on healing of the extraction socket after surgical removal of a partially impacted mandibular third molar: A randomized split-mouth clinical trial Mohammad Javad Hanifi, Hamedan University of Medical Sciences, Iran	101
Title: Inclusion health in action: Delivering dental care for patients with bleeding disorders in a specialist clinic Nadia Razavi, Birmingham Dental Hospital, United Kingdom	103

Table of Contents

Title: Immediate implant placement in infected sites: Clinical outcomes, challenges, and protocol optimization	105
Najmehsadat Valedsaravi, Mazandaran University of Medical Sciences, Iran	
Title: Effect of maxillary molars distalization using clear aligners (CAs) and fixed orthodontic appliances (FAs) on the positional and dimensional temporomandibular joint (TMJ) parameters: A three-dimensional comparative study	107
Naseem Ali Abdo Al-Worafi, China Medical University, China	
Title: Computer-aided design and fabrication of a pediatric Fox Plan in PLA: A case report	109
Nidal Elmoutawakkil, Sidi Mohammed Ben Abdellah University, Morocco	
Title: Complete digital workflow using CAD-CAM smart guides for an immediate complete denture: A case report	111
Nidal Elmoutawakkil, Sidi Mohammed Ben Abdellah University, Morocco	
Title: Hilotherapy use in orthognathic surgery	113
Nikou Gharooni-Dowrani, Luton and Dunstable University Hospital, United Kingdom	
Title: The rise of dental health tourism	115
Onur Akay, Dentakay, Turkey Koray Sadettinoğlu, Dentakay, Turkey	
Title: Peri-implantitis: The implant era's greatest challenge and the road ahead	34
Preetinder Singh, Academy of Oral Surgery, United States	
Title: Laxative prescribing for post-operative head and neck cancer patients at Derriford Hospital	116
Pui Sze Kylie Li, Cardiff and Vale University Health Board, United Kingdom	
Title: An evaluation of routine preventive care in children based on Public Health England's Delivering Better Oral Health (DBOH) toolkit	186
Pui Sze Kylie Li, Cardiff and Vale University Health Board, United Kingdom	
Title: From diagnosis to decision: Evidence-based choices in general dental practice	118
Ramesh Nagarajappa, The Oxford Dental College, India	
Title: Coronectomy for mandibular third molars: A retrospective review of clinical outcomes	120
Reem Alhakim, Royal Free London NHS Foundation Trust, United Kingdom	
Title: Dynamic navigation systems for predictable implant outcomes: Evidence & future trends	122
Richa Gupta, Independent Medical Writer, United States	

Table of Contents

Title: Preventing repeat general anaesthetic procedures by piggybacking at Great Ormond Street Hospital	124
Rosheen Fatima, Great Ormond Street Hospital, United Kingdom	
Title: Dental aesthetics	126
Sachin Shashikant Metkari, Nair Hospital Dental College, India	
Title: Oral and prosthodontic management of a patient treated with advanced orbital and sinonasal mucormycosis	128
Sarah Mekhairmar, Barts Health NHS Trust, United Kingdom	
Title: Outcomes of a feedback-informed oral surgery placement in longitudinal dental training	130
Shaun Dolby, NHS England - Midlands, United Kingdom	
Title: Longitudinal Joint Dental Foundation and Core Training (JDFCT): Evaluation of a pilot programme	188
Shaun Dolby, NHS England - Midlands, United Kingdom	
Title: A literature review assessing awareness of environmental sustainability in dentistry (ESD)	132
Shreeya Khetani, NHS England, United Kingdom	
Title: Systematic approach to esthetic excellence	134
Shveta Setia Thareja, SGT University, India	
Title: Transition to digital workflows in a UK dental hospital: Strategy, implementation, and early impact	136
Sinead Sutcliffe, Bristol Dental Hospital, United Kingdom	
Title: Principles of facial trauma surgery 2026	36
Steven J Traub, American Institute of Oral Biology, United States	
Title: Contemporary temporomandibular joint (TMJ) surgery	138
Steven J Traub, American Institute of Oral Biology, United States	
Title: Titanium — The ultimate socket preservation	139
Steven J Traub, American Institute of Oral Biology, United States	
Title: Impact of AI (artificial intelligence) tutors on human learning behavior: A cross-disciplinary analysis	140
Surbhi Priyadarshi, SGT University, India	

Table of Contents

Title: Artificial intelligence (AI) in clinical decision-making in third molar surgery Tannaz Pourlak, Tabriz University of Medical Sciences, Iran	146
Title: From referral to treatment: A retrospective audit on the factors impacting management of impacted maxillary canines in secondary care Theodore Wong, Aberdeen Dental Hospital, United Kingdom	148
Title: An audit of the confidence of final year dental students regarding the early career pathways at Aberdeen Dental School after an educational intervention Theodore Wong, Aberdeen Dental Hospital, United Kingdom	190
Title: Cleft lip/palate management – A multidisciplinary approach T. P. Chiang, Canada-China Child Health Foundation, Canada	37
Title: Joint care for patients with learning disabilities requiring sedation and general anaesthesia: A multidisciplinary case series Thushara Thayaparan, Surrey and Sussex Healthcare NHS Trust, United Kingdom	150
Title: Evaluating remimazolam for safe and effective sedation in older special care patients Thushara Thayaparan, Surrey and Sussex Healthcare NHS Trust, United Kingdom	192
Title: Orthodontic management of space following compromised molar extraction: When to close and when to maintain the space? Tabchi Yosra, Sidi Mohamed Ben Abdellah University, Morocco	142
Title: Orthodontic-surgical traction of impacted teeth: From 3D diagnosis to biomechanical management Tabchi Yosra, Sidi Mohamed Ben Abdellah University, Morocco	144
Title: MIH (molar incisor hypomineralization) etiology and treatment options Uri Zilberman, Barzilai Medical University Centre, Ben-Gurion University of the Negev, Israel	39
Title: Single root molars (SRM) – Prevalence and its significance in human dental evolution Uri Zilberman, Barzilai Medical University Centre, Ben-Gurion University of the Negev, Israel	156
Title: Occlusal management: The contribution of new technologies Wahid Hafssa Oumayma, Sidi Mohammed Ben Abdellah University, Morocco	152
Title: Technology-based assessment in pre-clinical prosthodontics: Technical skills, opportunities and challenges Wahid Hafssa Oumayma, Sidi Mohammed Ben Abdellah University, Morocco	154
Title: 'What does this mean?' – The use of abbreviations in clinical records Zoha Haider, Birmingham Community Healthcare NHS Trust, United Kingdom	158

Table of Contents

Title: Effect of Antibiotics on Oral-Respiratory Microbes
Zvi G. Loewy, New York Medical College, United States

40

About Magnus Group



Magnus Group, a distinguished scientific event organizer, has been at the forefront of fostering knowledge exchange and collaboration since its inception in 2015. With a steadfast commitment to the ethos of Share, receive, grow, Magnus Group has successfully organized over 200 conferences spanning diverse fields, including Healthcare, Medical, Pharmaceuticals, Chemistry, Nursing, Agriculture, and Plant Sciences.

The core philosophy of Magnus Group revolves around creating dynamic platforms that facilitate the exchange of cutting-edge research, insights, and innovations within the global scientific community. By bringing together experts, scholars, and professionals from various disciplines, Magnus Group cultivates an environment conducive to intellectual discourse, networking, and interdisciplinary collaboration.

Magnus Group's unwavering dedication to organizing impactful scientific events has positioned it as a key player in the global scientific community. By adhering to the motto of Share, receive, grow, Magnus Group continues to contribute significantly to the advancement of knowledge and the development of innovative solutions in various scientific domains

About ICDO 2026



The **12th Edition of International Conference on Dentistry and Oral Health (ICDO 2026)** is scheduled to take place from **September 28–30, 2026, in London, United Kingdom, and online** through a hybrid format that enables worldwide participation. The conference will serve as a global platform for dental professionals, clinicians, researchers, academicians, healthcare professionals, and oral health experts to exchange knowledge, share research findings, and discuss the latest developments in dentistry and oral health. By bringing together experts from diverse disciplines, the event aims to encourage collaboration and inspire innovative approaches to addressing current and emerging challenges in dental and oral healthcare. Centered around the theme, **Global Perspectives in Dentistry: Innovation to Impact** ICDO 2026 will explore a broad range of topics including general dentistry, oral and maxillofacial surgery, orthodontics, periodontology, endodontics, prosthodontics, oral pathology, oral medicine, pediatric dentistry, dental implants, restorative dentistry, cosmetic dentistry, dental materials, digital dentistry, and interdisciplinary research innovations.

The scientific program will feature keynote presentations, panel discussions, case studies, oral presentations, and poster sessions designed to stimulate meaningful dialogue and professional engagement. Participants will gain valuable insights into both clinical practices and research methodologies while building international networks that contribute to the advancement of dentistry and oral healthcare and improved patient outcomes across the globe.

About CE Accreditation



The Continuing Education (CE) credits available at ICDO 2026 hold significant value for participants, recognizing and affirming their dedication to continuous learning and professional growth. Earning CE credits brings numerous advantages, such as advancing one's career, upholding professional credentials, expanding knowledge base, and fostering networking opportunities. By attending ICDO 2026 and acquiring CE credits, individuals showcase their commitment to ongoing education, elevate their professional standing, and open doors to career progression. Moreover, meeting a minimum CE credit requirement is often obligatory for maintaining certifications or licenses in various fields. The ICDO 2026 Conference not only offers ample networking chances with peers and experts but also facilitates the expansion of professional connections and the cultivation of potential collaborations. Notably, each attendee will receive a total of 28 CE credits at the conference.

12TH EDITION OF

INTERNATIONAL CONFERENCE ON

DENTISTRY

AND ORAL HEALTH

HYBRID EVENT
28-30
SEPTEMBER 2026

KEYNOTE
PRESENTATIONS





Ali Al Kaissi

National Medical Research Center for Traumatology and Orthopedics Ilizarov, Kurgan, Russia

Biography: Ali Al Kaissi MD, MSc, Dsc (Hon); much of Al Kaissi's work is centered on one simple rule that every skeletal deformity/ abnormality must have an underlying causality that needs to be explored and addressed. This stems from the conviction that the vast majority of the skeletal deformities if not all do not occur randomly. His clinical experience resulted in more than 220 published papers in peer reviewed medical journals and five breakthroughs in medicine. Al Kaissi syndrome (OMIM: 617694); Al Kaissi et al, 3MC syndrome, (OMIM 257920); Al Kaissi novel type of desbuquois syndrome (AJMG 2005); Al Kaissi novel conception of wormian bones diagnostics J. basel- (2023).

Cutaneous, cranial, skeletal and dental defects in patients with Goltz syndrome

Background: The diagnostic process in patients manifesting a constellation of ectodermal abnormalities requires a conscientious and highly structured diagnostic process.

Material and Methods: Patients born with variable skin lesions associated with major cranial, dental and skeletal malformation complexes have been enrolled in this study. Distinctive craniofacial dysmorphic features associated with alopecia ranging between sparse hair to alopecia totalis. Cleft palate, delayed dentition, and severe dental abnormalities ranging between hypodontia to hypodontia associated with enormous dental dysplasia. Skin hypoplasia and multiple papillomas were evident around the mouth and mostly bilateral but asymmetrical in the upper and the lower limbs. Exaggerated frontal bossing (macrocephaly) and in some patient's microcephaly and variable skeletal defects of the craniocervical junction and diverse forms of lower limb deformities syndactyly, polydactyly and split-hand/ foot (ectrodactyly) defects.

Results: All patients manifested a constellation of abnormalities with various intensities ranging between alopecia, hypodontia, papillomas, striated skin pigmentations split-hand/ foot (ectrodactyly), and major bone defects. 3D reconstruction CT scan showed massive demineralization of the cranium associated with severely defective dentition. Spine 3D reconstruction CT scan showed marked cystic cavitation of the upper jaw associated with excessive cavitation of the mastoid causing tremendous frailty of the mastoid bone. 3D sagittal

CT scan showed odontoid hypoplasia and C1-2 instability associated with rudimentary atlas and persistence of extensive synchondrosis of the cervico-thoracic spine. The overall clinical and radiological phenotypic characterizations were consistent with the diagnosis of focal dermal hypoplasia (Goltz syndrome). Two children manifested heterozygous mutations in the PORCN gene chromosome Xp11.

Conclusion: Existence of the major and minor clinical manifestations in all our patients and the positive family history of male stillbirths, skin markings, multiple papillomas, alopecia, severe mal-dentition and variable hand and feet deformities were in favor of focal dermal hypoplasia. We added novel cranial and axial data by means of 3D reconstruction CT scan, which clearly showed the connection between defective ossification of the cranium, cervico-thoracic spine synchondroses, poor dentition and early frailty of the skull in patients with Goltz syndrome. This is the first comprehensive study of the cranio-skeletal malformation complex in children and adults with (GS).



Christopher Turner

Spacemark Dental, United Kingdom

Biography: Christopher Turner qualified from the Royal Dental Hospital of London with the degree of bachelor of dental surgery with distinctions in 1968 and spent the first few years working in general practice before undertaking higher training in restorative dentistry in London and Newcastle upon Tyne. During this time, Turner passed the fellowship in dentistry examinations of the Royal College of Surgeons of England and gained a master of dental surgery degree. In 1979, aged 34 years, Turner was appointed as a consultant/senior lecturer in the University of Sheffield Dental School with the remit

to establish new department and a self-contained multi-surgery unit, separate from the School, for final year dental students to help them make the transition to qualified general practitioner. This was the first unit of its kind in the UK, has been copied and continues in the same building today. Then in 1984, Turner moved to an NHS appointment as director of dental services in Salisbury. He took early retirement from the NHS in 2000 to establish a multidisciplinary private referral practice before retiring in 2012. He has always had an interest in prevention and plaque control and the links between diabetes mellitus and periodontitis, and is the inventor of the Chooseabrush® method to help patients with gingival recession optimise their oral health.

Atypical facial pain (AFP) – A mistaken diagnosis

Once diagnostic labels have been given to patients, they can be very difficult to change. Atypical Facial Pain (AFP) is a case in point. It has been defined as 'facial pain that does not meet the criteria for other known conditions.' The pain is unilateral, of varying duration and typically located infra-orbitally, around the mastoid process, in the external auditory meatus or in the submandibular region. In the absence of a trigger point trigeminal neuralgia can be excluded. Treatment is usually the prescription of Tegretol or antidepressants.

However, the true cause can be determined by an understanding of the:

- a. Embryology of the first branchial arch.
- b. Its derived motor nerve supply to all eight muscles via the mandibular division of the trigeminal nerve.
- c. The physiology of occlusion and the site of proprioceptors.
- d. The construction of complete dentures.

e. Centric (jaw) relation and centric occlusion.

f. The pathogenesis of temporo-mandibular joint dysfunction syndrome (TMJDS).

The unilateral, episodic pain of atypical facial pain suggests that this is due to muscle spasm, the most common cause of which is temporo-mandibular dysfunction syndrome. In fact, the symptoms of AFD are due to muscle spasm in the four smaller and often forgotten muscles supplied by the motor division of the trigeminal nerve. The correct diagnosis is TMJDS.

It follows that symptoms that might have formally led to a diagnosis of AFD should lead to a complete examination of both the larger four muscles of mastication and a complete examination of the occlusion including determining the occlusion at centric relation and any slides into centric occlusion followed by appropriate occlusal therapy.



Christopher Turner

Spacemark Dental, United Kingdom

Biography: Christopher Turner qualified from the Royal Dental Hospital of London with the degree of bachelor of dental surgery with distinctions in 1968 and spent the first few years working in general practice before undertaking higher training in restorative dentistry in London and Newcastle upon Tyne. During this time, Turner passed the fellowship in dentistry examinations of the Royal College of Surgeons of England and gained a master of dental surgery degree. In 1979, aged 34 years, Turner was appointed as a consultant/senior lecturer in the University of Sheffield Dental School with the remit

to establish new department and a self-contained multi-surgery unit, separate from the School, for final year dental students to help them make the transition to qualified general practitioner. This was the first unit of its kind in the UK, has been copied and continues in the same building today. Then in 1984, Turner moved to an NHS appointment as director of dental services in Salisbury. He took early retirement from the NHS in 2000 to establish a multidisciplinary private referral practice before retiring in 2012. Turner has always had an interest in prevention and plaque control and the links between diabetes mellitus and periodontitis, and is the inventor of the Chooseabrush® method to help patients with gingival recession optimise their oral health.

Occlusion and implants

Dental implants have become a common method of replacing some missing teeth in otherwise dentate patients but have failures in both the short and the long term often as a result of peri-implantitis. This may be initiated by occlusal trauma, the most likely cause of early implant bone loss. Occlusal trauma is associated with a 20 to 50 per cent rate of peri-implantitis. An excessive occlusal height of 100 microns may be the threshold for bone loss.

Patient selection is all important. Good oral hygiene and a stable occlusion without bruxism are key features.

Secondly, the function of the periodontal ligament allowing natural teeth to intrude into the alveolar bone in contrast to the fixed, osteo-integrated implant has to be taken into consideration when checking the occlusion during the fit stage of implant restorations.

A method of ensuring accurate, trauma free occlusion will be described.



Emre Sancaklı

Eyes of AI, Principal Clinician, Turkey

Biography: Dr. Emre Sancaklı is an experienced dentist based in Istanbul, Turkey. Sancaklı works closely with cutting-edge technologies in dentistry and holds qualifications in implantology, prosthetics, digital dentistry, aesthetic dentistry, various imaging modalities, and AI-based solutions. Sancaklı is also the Principal Clinician at Eyes of AI, where the role involves the development and documentation of up-to-date clinical information, contributing to the continuous growth and innovation within the dental industry.

Artificial intelligence (AI) in dentistry: Overcoming diagnostic challenges in modern practice

Artificial Intelligence (AI) is rapidly reshaping dentistry, moving from a promising innovation to a practical clinical aid across multiple areas of diagnosis and treatment planning. In routine dental practice, diagnosis is often complicated by subtle radiographic findings, anatomical structures that resemble pathology, incidental findings, time pressure, and interpretive variability. Together, these challenges can contribute to misdiagnoses, missed diagnoses, inappropriate interventions, and inconsistent clinical decisions.

AI-based systems are increasingly being developed to address these challenges across a wide range of dental imaging modalities, including panoramic, periapical, bitewing, cephalometric, and cone beam computed tomography (CBCT) examinations. By supporting the visualization of anatomical landmarks, highlighting abnormalities, performing automated measurements, and assisting with structured radiographic interpretation, AI can enhance diagnostic consistency and help clinicians distinguish normal anatomy from true pathology more effectively. Beyond diagnosis, these tools also offer value in patient communication by making radiographic findings more understandable and visually accessible during chairside discussions.

This presentation explores how contemporary AI applications can help overcome some of the most common diagnostic barriers in dentistry and examines their potential to improve accuracy, efficiency, and clinical confidence while reducing overtreatment, missed incidental findings, and observer variability. It also considers the current limitations of AI adoption, including integration into clinical workflows, interpretability, and the need for responsible implementation.

By positioning AI as an adjunct rather than a replacement for clinical judgment, this presentation highlights how innovation can be translated into meaningful clinical impact.



R. Hariharan

Head of Department of Prosthodontics and Implantology, Tagore Dental College and Hospitals, affiliated to The Tamil Nadu Dr. M.G.R. Medical University, Chennai, Tamil Nadu, India

Biography: Formerly a Dental Council of India and Ministry of Health, Government of India appointed Inspector for dental colleges across India. Ex Principal of Thai Moogambigai Dental College and Hospitals, India. Currently Head of Department of Prosthodontics and Implantology, Tagore Dental College and Hospitals, India. An efficient administrator with an overall 25 years of clinical experience and 21 years of PG academic experience. Recognitions include Notable Personalities of India 2024, Top Icons of India 2024, and the Dr. APJAK award 2026. Close to 50 publications in indexed national and

international journals including a book chapter, recipient of 15 awards from various prominent organisations, editorial board member of several international dental journals and reviewer of several prominent high-impact dental journals. Specialises in Corticobasal Implantology, and is a national speaker and international keynote speaker.

Alternative treatment methods using conventional and cortical implants in partially edentulous arches

Rehabilitation of the mandible with dental implants presents distinct biomechanical and biological challenges in posterior and anterior regions. In the posterior mandible, conventional implant-supported restorations are typically retained by cement or screws. Cement-retained crowns offer favorable esthetics but are associated with biological complications due to residual subgingival cement, which has been implicated in peri-implant mucositis, peri-implantitis, and crestal bone loss. Screw-retained prostheses eliminate cement-related pathology but frequently result in compromised esthetics due to occlusal access openings and are prone to mechanical complications such as screw loosening, screw fracture, and porcelain chipping over time. To address these limitations, cementless screwless prosthetic systems utilizing Morse-taper friction-fit connections have been introduced. These systems provide bacterial sealing at the implant-abutment interface, frictional retention, and retrievability without luting agents.

In the anterior mandible, treatment is complicated by ridge atrophy, limited alveolar width, poor cancellous bone quality, and proximity to the mental foramen and inferior alveolar nerve. Conventional implant protocols often require bone grafting procedures, increasing treatment duration, cost, and patient morbidity. Cortical basal implants offer an alternative by achieving primary stability through engagement of dense basal cortical bone rather than cancellous bone. Their disk-type or bicortical design permits flapless placement and immediate loading,

thereby reducing surgical invasiveness and treatment time. This clinical report presents two different clinical scenarios: rehabilitation of a missing mandibular molar using a cementless screwless crown over a conventional endosseous implant, and rehabilitation of missing mandibular anterior teeth using cortical basal implants. Both approaches aim to minimize biological and surgical complications.

Conclusions: Cementless screwless conventional implant crown offer a biologically safe and esthetic option for posterior rehabilitation by eliminating cement-related inflammation and screw-related mechanical failures, both well documented in implantology. Cortical basal implants enable immediate, graftless rehabilitation in atrophic anterior mandibles with high primary stability. Both techniques demonstrate promising short-term clinical and radiographic outcomes and expand treatment options for anatomically challenging mandibular sites. Long-term prospective studies are required to evaluate prosthetic survival, wear of the taper interface, and marginal bone stability.



Jaap Boehmer

Rijnstate Hospital, Arnhem, the Netherlands

Biography: Dr. J. Boehmer studied dentistry in Utrecht N.L. and graduated as MS in 1964. Boehmer worked in the Rijnstate Hospital Arnhem as special dentist and treated 3000 children under 6 years, handicapped persons and drug-addict patients, with rampant caries under general anaesthesia. Boehmer gave presentations about prevention in dentistry on T.V. and at political parties in the Netherlands and on congresses. From 1970 till 1980, Boehmer was a member of the board of the Dutch Dental Association. The dental hygienist was then introduced in the Netherlands.

Prevention in medicine, especially in the field of dentistry in the Netherlands

In the Netherlands, prevention in Medicare is important.

In the presentation is shown how it is done in health care in general medicine.

Non smoking actions, Covid vaccination measures and long Covid treatment. Also, critical percentages of vaccinations of babies and young children are discussed. Other fields of medicine with prevention measures also.

Specially in dentistry, the dental profession succeeded to get for the youth till 18 years, nearly no decay. Also the decay from allochtone children is diminishing.

How did they do that? What is the role of the government and insurance companies? Also the public health organisations worked with the dentists.

The lecture gives idea what the dental profession can do in this field!



Preetinder Singh

Academy of Oral Surgery, United States

Biography: Dr. & Prof. Preetinder Singh, BDS, MDS (Medalist), is a globally recognized Periodontist, Oral Implantologist, and academician, widely respected for clinical expertise, academic contributions, and leadership in dental innovation. A Gold medalist in the field, Singh has dedicated the career to advancing periodontology, oral implantology, laser dentistry, and dental education worldwide. Singh currently serves as a Professor at WAGRO University, Greece, and UCAM, Spain, and holds an international faculty position as Senior Professor at the Universal School of Health, Florida, USA. His

academic roles reflect a commitment to fostering global standards in dental education and clinical training. Prof. Singh is a sought-after international keynote speaker, having delivered lectures and conducted training in over 30 countries, including the USA, Canada, UAE, Iran, Iraq, Germany, India, Syria, Italy, Australia, Austria, UK, Libya, Morocco, Thailand, Greece, Vietnam, Serbia, Singapore, Japan, Malaysia, New Zealand and Bulgaria etc. and many more. His presentations are known for their scientific depth, practical insights, and futuristic vision of dentistry. Singh has authored 5 textbooks and has 55 publications, and is on the Editorial Board of 10 international journals of repute. In addition to the academic and clinical roles, Singh holds multiple prestigious international leadership positions: Vice Director, World Federation of Laser Dentistry (North American Division), Headquarters in Brazil; Executive Director, Dental Artificial Intelligence Association (USA); International Ambassador, Academy of Oral Surgery (USA); and Regent, Global Summit (USA). Singh's excellence in dentistry has been recognized by leading global organizations. He has been featured among the Top 100 Dentists of the World, and the clinical center has been honored by Leading Implant Centers (LEADING CENTERS GmbH, Switzerland) for its excellence in implantology. A visionary in integrating artificial intelligence into dental practice and education, Dr. Singh continues to shape the future of dentistry through innovation, research, and global collaboration.

Peri-implantitis: The implant era's greatest challenge and the road ahead

The widespread adoption of dental implants has transformed the rehabilitation of partially and completely edentulous patients, offering predictable functional and esthetic outcomes with high long-term survival rates. However, the increasing prevalence of peri-implant diseases, particularly peri-implantitis, has emerged as one of the most significant biological complications threatening implant longevity. Characterized by inflammation of the peri-implant tissues accompanied by progressive bone loss, peri-implantitis presents a complex clinical challenge due to its multifactorial etiology, unpredictable progression, and variable treatment outcomes.

Current evidence indicates that peri-implantitis results from the interplay of microbial biofilms, host immune response, implant surface characteristics, prosthetic design, systemic conditions such as diabetes, smoking, previous history of periodontitis, occlusal overload, and inadequate maintenance. Early diagnosis remains critical, yet standardized diagnostic criteria and universally accepted treatment protocols continue to evolve. Conventional therapeutic approaches—including mechanical debridement, antiseptic and antibiotic therapy, implant surface decontamination, laser-assisted treatment, regenerative procedures, and resective surgery—have demonstrated varying degrees of success, highlighting the need for more predictable and personalized management strategies.

The future of peri-implantitis management lies in precision dentistry, integrating advances in Artificial Intelligence (AI), digital diagnostics, salivary biomarkers, microbiome analysis, laser technology, photodynamic therapy, and regenerative biomaterials. AI-assisted radiographic interpretation and predictive analytics have the potential to identify high-risk patients before significant tissue destruction occurs, while salivary diagnostics may enable chairside detection of inflammatory biomarkers for early intervention. Emerging implant surface modifications with antimicrobial and bioactive coatings, nanotechnology-based drug delivery systems, probiotics, host modulation therapy, and tissue engineering approaches offer promising avenues to prevent biofilm formation and enhance peri-implant tissue regeneration. Furthermore, digital workflows and personalized maintenance protocols are expected to improve long-term implant success by tailoring preventive strategies to individual patient risk profiles.

This presentation provides a comprehensive overview of the epidemiology, pathogenesis, diagnosis, risk assessment, and contemporary treatment modalities for peri-implantitis while critically examining the limitations of current therapies. It further explores the transformative role of emerging technologies and interdisciplinary research in reshaping the future of implant care. Emphasis will be placed on prevention, early detection, minimally invasive intervention, and precision-based management as the cornerstones of sustainable implant therapy.

As implant dentistry continues to evolve, overcoming peri-implantitis will require a paradigm shift from reactive treatment to proactive prevention supported by innovation, evidence-based clinical protocols, and patient-centered care. Addressing this challenge effectively will be fundamental to ensuring the long-term success and sustainability of implant therapy in the decades ahead.



Steven J. Traub

American Institute of Oral Biology (AIOB), USA

Biography: Dr. Traub graduated from Creighton University School of Dentistry in 1978 following which he completed a 3-year Oral & Maxillofacial Surgery residency at world famous Cook County Hospital in Chicago, Illinois USA in 1981. Traub has been in private solo practice for over 45 years, and is a long-time fellow and board member of the American Institute of Oral Biology and a life fellow of numerous local, state, national and international professional societies. Traub has 8 grown children and enjoys classic rock music and attends live operas and numerous film festivals all around the world every year.

Principles of facial trauma surgery 2026

This 40-minute presentation involves the principles of immediate, emergent, and definitive facial skeletal, soft tissue, and dental injury management with classic visual examples of short- and long-term outcomes.



T. P. Chiang

President, Canada China Child Health Foundation,
Vancouver, Canada

Biography: BSc, DDS, Doctorate in Dental Medicine (Dalhousie University, Canada), Master of Science (Epidemiology) Harvard University, Post doctorate studies at the Massachusetts Institute of Technology (MIT) Cambridge Mass, Teaching Fellow in Pediatric Dentistry, Harvard School of Dental Medicine/Boston Children's Hospital. American pediatric dentistry Fellow. President, Canada China Child Health Foundation. Served as China's consultant in Preventive Dentistry Steering Committee. Associate professor University of British Columbia. Honorary president of China's Nanjing

Stomatology Hospital, Nanjing Medical University; Honorary professor/consultant of Beijing Children's Hospital, Beijing Capital Institute of Pediatrics, Harbin Children's Hospital, Guangzhou Maternal and Child Health Institute, Guangzhou Children's Hospital, Tianjin Children's Hospital, Children's Hospital of Dalian, Nanjing Maternal and Child Health Hospital, Maternal and Child Health Hospital of Wuhan, Suzhou Health College, Chongqing Medical University Children's Hospital. Recipient of the WUSC Lewis Perinbam Award for International Development.

Cleft lip/palate management- A multidisciplinary approach

Cleft lip and palate is a common congenital maxillofacial deformity, with incidence rate vary among different ethnic groups even within the same country. There is serious tissue defects with loss of maxillary bone segment and tissue displacement involved, affecting both appearance and function. This deformity causes major challenges because of associated problems, i.e. feeding, conduct disorder, high treatment cost, ear infection, hearing loss, language difficulty.

With the advancement of technology, new surgical techniques and treatments greatly improve the effectiveness of treatment of cleft lip/palate. Current approach to cleft lip and palate treatment is beyond simple surgical repair, which include restoration of appearance and function, psychological problem, and changes in growth and developments. Optimal management utilizing an integrated and collaborative/multidisciplinary approach is particularly important and is almost standardized in US. This collaborative team involves: plastic surgeon, anesthesiologist, pediatric dentist, orthodontist, maxillofacial surgeon, dental surgeon, speech pathologist, audiologist, feeding nurse, pediatrician and otolaryngologist. Dentistry's role involve the following disciplines: pediatric dentist, orthodontist, maxillofacial surgeon, and prosthodontist.

Cleft lip and palate multidisciplinary approaches different growth stages with different therapeutic targets. Neonatal period pursue physical appearance/functionality; pre-pubertal period guide arch form development and completion of alveolar bone graft; puberty aims at improve function; orthognathic surgery repair follows growth and development completion.

With respect to the various dental specialties the following are their roles in the treatment of cleft patients; Maxillofacial surgeon: Performs secondary alveolar bone grafts, combines with the orthodontist to correct facial skeletal deformities, augments bone and places implants with the prosthodontist. Prosthodontist: Coordinate with the orthodontist and surgeon during treatment planning, replace missing teeth, restore esthetics, assure longevity of functional dentition. Orthodontist: Works with the pediatric dentist in the mixed dentition, guidance for the permanent occlusion and maxillo-facial complex, treats the permanent dentition, develops treatment plan for orthognathic surgery with the oral-maxillofacial surgeon and the prosthodontist. Pediatric Dentist: Serves as patient plus parent advocate in infancy & mixed dentition phase treatment, provide unique perspective of the whole child and the preparation of early and overall dental treatment plan (with the team), and finally, its integration and implementation.

This program was initially introduced in 1999 through multiple exchange programs with Canada and the US. Over the past decade there has been over 13000 cleft lip/palate patients treated at the Guangzhou center alone.



Sherman M, Maatuk A, Ben Shitrit M, Hershcovith F, Zilberman U*

Pediatric Dental Clinic, Barzilai Medical University Center, Ashkelon, affiliated to Ben-Gurion University of the Negev, Beer-Sheva, Israel

Biography: Uri Zilberman received his DMD degree in 1983 from the Dental Faculty, Hebrew University, Jerusalem, and a PhD degree in 2000 on basic dental science, especially dental anthropology. Dr. Zilberman has a specialist degree in pediatric dentistry from 1990 and treated children and adolescents for the last 40 years. Prof. Zilberman is the head of the Pediatric Dental Unit at Barzilai Medical University Center, a unit recognized for specialization in pediatric dentistry since 2007, and is Associated Professor at the Faculty of Health Science, Ben-Gurion University of the Negev, Beer-Sheva, and

teaches a course on Pathophysiology of the Oral Cavity for fourth year pharmacology students. Prof. Zilberman published more than 90 research papers and chapters in pediatric dentistry and dental anthropology. His main interests are new dental procedures and devices for pediatric dentistry, hereditary disorders and their effect on tooth development, and the use of biomimetic materials in pediatric dentistry, like Glass-Ionomers Cements. Zilberman developed new dental procedures and a patented new dental device for pediatric dentistry.

MIH (molar incisor hypomineralization) etiology and treatment options

MIH (Molar Incisor Hypomineralization) is a growing worldwide burden. It affects almost 30% of the children aged 6-16 in Israel and is still increasing. The aetiology is obscure since the defect occurs during the first 2-3 years of life but the clinical expression can be observed after first molar eruption, age 6+. It started with dioxin poisoning of mother milk in 1996 and all the childhood diseases and oxygen shortage to genetic mutations recently.

Amelogenesis: During the secretory stage of amelogenesis the ameloblasts start secreting large amounts of enamel matrix proteins. Several proteins are secreted: amelogenin (80-90% of the organic matter), ameloblastin (only 5%) and enamelin (3-5%). The enamel proteins are degraded by two proteases: matrix metalloproteinase 20 (MMP20) and kallikrein 4 (KLK4). We examined the concentration of MMP20 and KLK4 from blood samples of 500 children aged 0-6 years and compared with clinical MIH findings after eruption of the permanent molars. In children with MIH the concentration of KLK4 were significantly lower (P value=0.02). The concentration of MMP20 was higher in the MIH group but without statistical significance. In the absence of KLK4, substantial retention of enamel proteins occurs in the enamel. It may be postulated that the retention of the enamel proteins in MIH/dmh teeth was caused by reduced concentration of KLK4.

Treatment options will be discussed and results of case series will be presented.



Rivka Kayser¹, Rebecca Bock¹,
Tzivvia Elias¹, Danielle Kamsan¹,
Lily Notkin² and Zvi G. Loewy^{1,3*}

¹Touro University, College of Pharmacy, New York, NY, USA

²Lander College for Women, New York, USA

³School of Medicine, New York Medical College, Valhalla, NY, USA

Biography: Dr. Zvi G. Loewy is a senior academic leader and an experienced global pharmaceutical–biotechnology executive. He leverages a diversified background in big-pharma senior management, biotech startup creation and academia. Dr. Loewy has served as a board member of the New Jersey Bioscience Center Incubator since 2010. Dr. Loewy's international experience has included leading international research teams, championing the penetration and commercial launch of healthcare products world-wide, and leading open innovation in the Mid-East. Dr. Loewy

received his PhD in Molecular Biology from the Albert Einstein College of Medicine, and has over 25 issued patents.

Effect of antibiotics on oral-respiratory microbes

Innovative medical devices have enhanced health care and improved the overall quality of life. Although providing significant medical benefits, there are unfortunately a myriad of diseases that can be attributed to the presence of medical devices. Microbes can colonize on a medical device surface and cause infections, and at times can even lead to malfunction of the device. Microbial species are present either as planktonic cells or incorporated into biofilms.

While different types of medical devices harbor microbes, dental prostheses are some of the most pervasive. The majority of the oral microbes are commensal organisms. Those that are pathogenic microbes can result in oral infections, and at times initiate systemic diseases.

Chronic Obstructive Pulmonary Disease (COPD) is the third leading cause of death world-wide. COPD manifests as an inflammatory condition involving the airways, lung parenchyma and pulmonary vasculature. COPD exacerbation correlates with bacterial colonization of the upper and lower airways. Key bacteria implicated in COPD and resident initially in the oral cavity are *Pseudomonas aeruginosa*, *Haemophilus influenzae* and *Moraxella catarrhalis*.

In this study we focus on characterizing the activity of antibiotics on oral-respiratory microbes both in planktonic form as well as biofilms.

12TH EDITION OF

INTERNATIONAL CONFERENCE ON

DENTISTRY

AND ORAL HEALTH

HYBRID EVENT
28-30
SEPTEMBER 2026

ORAL
PRESENTATIONS





Afroz Alam Ansari

Professor, Department of Paediatric and Preventive Dentistry,
K.G. Medical University, Lucknow (UP), India

Conscious sedation vs. general anesthesia-Which one to choose?

Conscious sedation and general anesthesia are pharmaceutical techniques used in dentistry to manage patient anxiety, fear, and pain. Conscious sedation keeps patients awake and responsive, whereas general anesthesia induces a deep, unconscious state requiring respiratory support. Both require specialized training and strict monitoring.

Conscious sedation is a drug-induced state that depresses the central nervous system, allowing patients to relax while remaining awake, breathing on their own, and responding to verbal commands. The goal of conscious sedation is to alleviate anxiety, reduce the gag reflex, and improve cooperation during procedures. The common methods are inhalation: nitrous oxide (laughing gas) is administered through a nasal mask; oral: anti-anxiety pills (e.g., midazolam or valium) taken before the procedure; and intravenous (IV): medication delivered directly into the bloodstream for a rapid onset and adjustable level of sedation. In conscious sedation, protective reflexes are intact, allowing the patient to easily swallow and maintain their own airway.

General anesthesia: General anesthesia is a medically induced, deep state of unconsciousness where the patient cannot be easily aroused, even by painful stimulation. The goal of GA is the complete elimination of awareness, sensation, and memory of the procedure. Safety and monitoring is mandatory as protective reflexes and the ability to breathe independently are lost. This requires advanced airway management, such as a breathing tube or a laryngeal mask, and continuous monitoring of vital signs. Dentists must have advanced Commission on Dental Accreditation (CODA) training and hold certifications like Advanced Cardiac Life Support (ACLS) to administer it.

Which one to choose: The choice between the two depends on the complexity of the dental procedure, the patient's medical history, age, and level of dental phobia. Conscious sedation is highly effective for routine, lengthy, or mildly stressful procedures in cooperative patients, whereas general anesthesia is typically reserved for highly complex surgeries, very young pediatric patients, or individuals with severe special needs or extreme dental phobias.

Biography

Dr. Afroz Alam Ansari is currently working as a professor in the Department of Pediatric and Preventive Dentistry at the Faculty of Dental Sciences, King George's Medical University, Lucknow. Ansari completed BDS (1998) and MDS (2002) from KGMC, Lucknow, and has over 23 years of experience in academia, clinical practice, and research. He has served at various prestigious institutions and extensively guided postgraduate students. Ansari's major interests include early caries detection and behavioral management of pediatric patients in pediatric dental practice. Dr. Ansari is currently guiding several postgraduate students on multiple research projects and has over 35 publications in reputable journals, with significant contributions to pediatric dental patient care.



Alisha Patel*, Kenneth Hemmings

Eastman Dental Hospital, United Kingdom

The restorative management of an adolescent patient with severe hypodontia utilising a digital workflow

Introduction: Hypodontia in adolescent patients presents significant functional and aesthetic challenges, often requiring coordinated multidisciplinary management. Restorative Dentistry input before and after orthodontic treatment is essential to guide treatment planning, optimise aesthetic outcomes, and facilitate predictable prosthetic rehabilitation. In the replacement of congenitally missing teeth, digital workflows are increasingly being adopted, with intraoral scanning supporting prosthesis design and the production of 3D-printed study models for diagnosis, treatment planning, and restoration fabrication.

Case Presentation: A 19-year-old male patient was referred to the Restorative Dentistry clinic following orthodontic correction of a Class III malocclusion on a Class I skeletal base with reduced vertical proportions and severe hypodontia involving nine missing teeth. Multidisciplinary treatment planning was undertaken within a joint hypodontia clinic before debonding of the fixed orthodontic appliances to confirm optimal space distribution and establish the restorative treatment objectives. Given the patient's age and the risks associated with dental implant placement in a growing individual, including continued craniofacial growth and the potential for infraocclusion, a conservative restorative approach was adopted. This comprised direct composite build-ups to optimise the proportions of the existing dentition, combined with resin-bonded bridges to replace the missing teeth. Following completion of orthodontic treatment, the patient returned to the Restorative clinic to commence prosthetic rehabilitation. A fully digital workflow was utilised, beginning with intraoral scanning to generate 3D-printed study models for treatment planning, followed by a CAD-designed diagnostic wax-up.

Conclusion: This case emphasises the importance of early multidisciplinary planning and restorative input in the management of hypodontia. In young patients, treatment should prioritise prosthesis longevity to reduce the need for repeated intervention over the course of the patient's lifetime, whilst providing an optimal aesthetic outcome.

Biography

Alisha Patel graduated from the University of Birmingham in 2023 and have since completed training posts across a range of dental specialties, including Oral and Maxillofacial Surgery, Special Care Dentistry, and Restorative Dentistry. She is currently a Dental Core Trainee at the Eastman Dental Hospital, with a particular interest in Orthodontics. This presentation reflects her ongoing interest in the Restorative-Orthodontic interface and she hope to pursue specialty training in the future.



Alisha Sagar

University Hospital Southampton, United Kingdom

MRONJ (medication-related osteonecrosis of the jaw) and ORN (osteoradionecrosis): Referral or management in primary care? Navigating guidelines in the context of long waiting lists

Medication-related osteonecrosis of the jaw (MRONJ) and osteoradionecrosis (ORN) are serious complications associated with antiresorptive or antiangiogenic medications and head and neck radiotherapy, respectively, and represent an increasing clinical challenge for dental practitioners. Improved survival rates among oncology patients, alongside wider prescribing of antiresorptive therapies for oncological and non-oncological indications, have contributed to a growing population of at-risk patients, resulting in increased referrals to oral and maxillofacial surgery services and prolonged waiting times within secondary care. Although national and international guidelines provide structured recommendations for prevention, risk stratification, and management, uncertainty remains among dental practitioners regarding appropriate referral thresholds and the extent to which patients can be safely managed within primary dental care. This presentation aims to explore current guidance on MRONJ and ORN and clarify when referral is indicated versus when treatment can be delivered in primary care in accordance with established protocols, particularly in the context of increasing service pressures. Within this project, a review of key guidance documents, including SDCEP and NICE recommendations, alongside relevant contemporary literature, will be undertaken to examine staging systems, referral criteria, and management pathways. Over-referral of low-risk or stable patients may place unnecessary strain on already pressured secondary care services without demonstrable benefit to patient outcomes, potentially delaying access for patients with more advanced disease. Improved understanding and confident application of MRONJ and ORN guidelines may support more effective clinical decision-making, enabling timely referral of complex or progressive cases while empowering dentists to manage appropriate patients safely in primary care, thereby reducing service pressures and promoting high-quality, patient-centred care.

Biography

Alisha Sagar qualified with a BDS from King's College London in 2024, and completed Dental Foundation Training within the Winchester scheme, where she developed a strong interest in oral surgery and the management of acute dental conditions. Alisha has since commenced Dental Core Training Year 1 in Oral and Maxillofacial Surgery at Southampton, gaining experience in the assessment and surgical management of complex oral pathology, with a particular interest in diagnostic challenges and multidisciplinary care within oral and maxillofacial surgery.



Amitha H A

V.S. Dental College and Hospital, India

Evaluation of effectiveness of chromotherapy as behavior guidance technique in children aged 6–12 years for management of oral diseases: A randomized controlled trial

Children with cerebral palsy frequently exhibit heightened dental anxiety and uncooperative behaviour due to neuromuscular impairment, sensory hypersensitivity, and communication difficulties, making behaviour management during dental procedures particularly challenging. Conventional non-pharmacological behaviour guidance techniques may be insufficient in this population, while pharmacological methods have inherent limitations, underscoring the need for safe, non-invasive alternatives. Chromotherapy is a therapeutic approach based on visual stimulation using specific wavelengths of visible light that influence neuropsychological and physiological responses; blue and green light, in particular, are known to promote relaxation by modulating autonomic nervous system activity and reducing stress. Despite emerging evidence supporting chromotherapy in pediatric dental anxiety, its application in children with cerebral palsy using objective stress biomarkers remains limited. Therefore, this three-arm randomized controlled trial aims to evaluate and compare the effectiveness of blue and green chromotherapy as a behaviour guidance technique in children with cerebral palsy (CP – spastic type) by assessing salivary cortisol levels and behavioural responses during dental treatment. Thirty-nine children aged 4–6 years will be randomly allocated into natural light (control), blue light, and green light groups. Unstimulated saliva samples will be collected between 9:00 AM and 11:00 AM before and immediately after atraumatic restorative treatment and salivary cortisol levels are analysed using ELISA, while behavioural responses during the dental treatment will be assessed using Venham's Behavior Rating Scale.

Keywords: Cerebral Palsy, Chromotherapy, Blue Light Therapy, Green Light Therapy, Behaviour Guidance, Salivary Cortisol, Pediatric Dentistry.

Biography

Dr. Amitha H.A. is presently working as Associate Professor in the Department of Pediatric Dentistry, and completed under graduation (B.D.S) from A.B Shetty Institute of Dental Science and MDS (Pediatric Dentistry) from V.S Dental College and Hospital (under RGUHS Bangalore). As an undergraduate, Amitha was a top student in the subjects of Community Dentistry and Oral Medicine and also secured second rank in Conservative Dentistry under RGUHS (2002-2007), and as a post graduate secured 5th rank in Pediatric Dentistry. Amitha has served as an Assistant and Associate Professor in the Department of Pediatric and Preventive Dentistry in V.S Dental College and Hospital, and has undergone training in Nitrous Oxide Inhalation management of Special Children. Amitha has actively contributed to community dental health programs, notably conducting an oral hygiene awareness camp at various NGOs, providing both dental education and essential supplies to underprivileged children. Dr. Amitha has presented at several national conferences, including the International Conference on Dentistry and Oral Health (ICDO 2022, London) and the 9th International Conference on Dentistry and Oral Health (Madrid, Spain, 2024), where she delivered an oral presentation on her research.



Amy Amanfu

Whipps Cross Hospital, Royal London Hospital, Barts Health
NHS Trust, London, United Kingdom

#WisdomTeeth: Has the prominence of newer social media platforms increased the reliability of wisdom-tooth related content?

Aim: Social media remains an ever-popular method of information sharing and communication. In 2020 “#wisdomteeth: an analysis of 100 social media post and a survey of patient perceptions” was published in the British Dental Journal. Six (6) years on, this study aims to act as an update reflecting the landscape of social media platforms today.

Method: The top 100 posts returned from a search of #wisdomteeth on Instagram and TikTok were identified over a three (3) month period and subsequently analysed by a single reviewer.

Results: 89% of 2026 Instagram posts were from dentist/professional accounts vs 51% in 2020. TikTok 2026 40% patient/public-authored vs only 11% on Instagram 2026. Healthcare advice as leading professional-post category on both platforms. AI-generated/animated content was a new analysed category. Six years on, patient identification continues to be an issue, an area of contention regarding GDC guidelines. TikTok's patient contributions dwarf Instagram's, consistent with post-operative opinions, which tended to skew negative. On both sites, findings showed a range of content from healthcare advice to misinformation. It is important for the dental profession to be aware of this, as this is the climate in which we treat our patients.

Biography

Dr Amy Amanfu is a dentist currently working as a Dental Core Trainee (DCT3) in Restorative Dentistry in the Midlands. She graduated in dentistry in 2023 following training in Plymouth

and has since completed rotations in Oral Surgery/OMFS (DCT2, Barts Health NHS Trust) and Paediatric and Special Care Dentistry (DCT1, Barts Health NHS Trust). Her training has combined clinical practice with quality improvement and academic research. Alongside her core training, Amy is undertaking a Level 7 diploma in aesthetics and is working towards a career in Orthodontics. She is committed to broadening the clinical skillset while pursuing specialty training opportunities.



Anushka Karandikar*, Reem Al-Koky, Arathi Papineni McIntosh

Birmingham Dental Hospital, Birmingham Community Healthcare NHS Foundation Trust, United Kingdom

Safety and effectiveness of propofol sedation for oral surgery procedures

Intravenous propofol is a favourable conscious sedation technique in oral surgery due to its ability to adapt to short or long surgical time. This retrospective cohort study assessed the effectiveness and safety of a propofol sedation service in a dental hospital setting.

A retrospective review of 52 consecutive cases was undertaken. Of the patients included, 36 (69.3%) were female, with a median age of 43 years (range 15–81 years). Twenty (38.5%) were ASA I, 27 (51.9%) ASA II and 5 (9.6%) ASA III. Treatment was completed successfully in 51 cases (98.1%), with one patient requiring rebooking for general anaesthesia. Seventeen patients (32.7%) had a history of failed treatment under local anaesthesia, inhalation sedation with nitrous oxide or intravenous sedation with midazolam. The median propofol dose was 180 mg (range 47–500 mg), and 19 patients (36.5%) also received midazolam. Median treatment duration was 30 minutes (range 10–70 minutes) and included simple extractions, expose-and-bonds and cyst management.

No serious complications were reported. Minor adverse events included difficult cannulation, pain on infusion, transient anxiety and involuntary arm movements. Propofol sedation appears to be a safe and effective option for oral surgery patients, including those with previous failed sedation experiences.

Biography

Anushka Karandikar graduated from King's College London in 2023, completed Dental Foundation Training in the West Midlands before undertaking a Dental Core Training 1 post in Oral Surgery, Oral Medicine and Restorative Dentistry at Guy's Hospital, London, followed by a Dental Core Training 2 post in Oral Surgery and Sedation at Birmingham Dental Hospital. Anushka has completed the Membership of the Faculty of Dental Surgery examination and a postgraduate certificate in conscious sedation, and has presented research nationally and internationally on intravenous and inhalation sedation in oral surgery. Karandikar's clinical interests include oral surgery and conscious sedation.



Bahar Gharooni-Dowrani

Guy's Hospital, United Kingdom

Managing the unexpected: An insight into supernumerary teeth

Supernumerary teeth represent a developmental anomaly defined as the presence of an additional tooth beyond the normal series, occurring in approximately 2% of the permanent dentition (Mitchell et al., 2013).

Supernumerary teeth can contribute to a range of aesthetic and functional disturbances. While some are asymptomatic and detected incidentally, others can lead to significant dental abnormalities, including delayed eruption or displacement of permanent teeth, formation of caries, crowding, diastemas or cyst formation. Early diagnosis and multidisciplinary care are therefore essential to reduce the potential consequences on the developing dentition.

This presentation will review current orthodontic literature and explore the aetiology, which remains unclear but is thought to involve a genetic component. Emphasis is placed on diagnostic approaches, with clinical and radiographic assessment aiding early diagnosis and treatment. The management of supernumerary teeth is complex and requires a comprehensive, well-coordinated approach rather than addressing the tooth in isolation. Treatment strategies, ranging from observation to surgical intervention, should be tailored to the individual patient, considering factors such as the morphology, position and eruption status of the supernumerary tooth, the stage of dental development and any associated pathology.

Case examples and evidence-based guidelines will be discussed to provide a comprehensive understanding of supernumerary teeth, as well as the clinical considerations required to optimise patient care.

Biography

Bahar Gharooni-Dowran graduated from King's College London in 2024, completed foundation training in Hertfordshire and is currently a Dental Core Trainee at Guy's Hospital, working across the Oral Surgery, Oral Medicine, and Restorative departments. Gharooni-Dowrani is currently undertaking the MFDS examinations and has a strong interest in Orthodontics.



Beatriz Fleitman

Private Practice, Herzliya, Israel

Unlocking the power of saliva: Strategies for caries management and prevention

The oral cavity is home to a complex microbiome, comprising over 700 bacterial species, though only a subset is linked to dental caries and periodontal disease. Dental caries is a multifactorial, biofilm-mediated, diet-driven disease, characterised by net mineral loss from dental tissues due to acids produced by cariogenic bacteria, such as *Streptococcus mutans*, in dental plaque. After sugar intake, these acids lower plaque pH, driving demineralisation. Crucially, saliva plays a key protective role: it buffers acids, supplies calcium and phosphate, and promotes remineralisation. The pH of saliva is vital in maintaining this balance, as a neutral or slightly alkaline pH supports the repair of early lesions. Traditionally, dental practitioners focused on repairing damage; today, their approach emphasises early detection and remineralisation of incipient carious lesions, before any disruption of dental tissues occurs. Thus, saliva, through its buffering capacity and mineral supply, remains central to preventive care, guiding a shift in dental practice towards preserving and restoring health before irreversible damage occurs.

Biography

Dr. Beatriz Fleitman is currently working in private practice in Herzliya, Israel, where she has been practicing since 1986. For the past 40 years, Fleitman has worked especially in family dentistry, promoting preventive care. Dr. Fleitman graduated from the School of Dentistry at UNITEC Universidad Tecnológica de México in Mexico City, participates in the Midwinter Meeting in Chicago every year and lectures in Israel at the IDS Institute. In 2018, Fleitman completed an MSc degree in Advanced Minimum Intervention at King's College London, and is a member of the American Dental Association (ADA), the Chicago Dental Society, and the American Academy of Pediatric Dentistry.



Ben Spillane*, Alex Davies, Lee Feinberg, Dapo Akintola

King's College Dental Institute, King's College Hospital NHS
Foundation Trust, London, United Kingdom

Case series of atypical presentations of ameloblastoma

Ameloblastomas are benign locally invasive neoplasms. Classically considered the second most common odontogenic tumour after odontoma it is the most common odontogenic tumour in African populations. Classically the radiographic appearance may show unilocular or multilocular radiolucency (with multilocular more prevalent). There may be septa or multilocular appearance to the lesions. This may appear as a 'soap bubble'. Here we present a case series of a number of atypical ameloblastomas to demonstrate the phenotypic heterogeneity of this condition in a south London population of King's College Hospital.

Biography

Ben Spillane works in the Oral Surgery department at King's College Hospital, having completed a year of training in oral and maxillofacial surgery, and is currently a clinical fellow in oral and maxillofacial surgery at the Northwest London Major Trauma Centre. In addition to dentistry, Spillane also has experience as a Senior Lecturer/Lecturer in Anatomy at St George's University/Kingston University Joint faculty for 5 years, and has taught at six different universities across the UK and Australia. Spillane is a Fellow of the Higher Education Academy and a member of the Faculty of Dental Surgery at the Royal College of Surgeons Edinburgh.



Brittany Cox

O'Hehir University, United States

Agents of change: How dental hygienists can drive eco-friendly prevention and early intervention

Dental hygienists are uniquely positioned to lead a significant transformation in dental care, embracing sustainable practices that not only improve patient outcomes but also contribute to the health of our planet. As the demand for eco-conscious healthcare grows, hygienists are the agents of change in dental practices, driving prevention-based models that prioritize environmental sustainability. In this course, participants will explore the pivotal role of dental hygienists in integrating sustainable strategies into daily clinical routines. From minimizing waste in the operatory to selecting eco-friendly preventive products and utilizing cutting-edge technology, this course will empower dental hygienists to reduce their environmental impact while improving patient care.

Attendees will delve into the benefits of early intervention, caries risk assessments, and digital wellness scans, all framed within a sustainable approach. The course emphasizes the importance of aligning oral care with planetary health and fostering a preventive mindset among patients. By taking a leadership role in promoting environmentally friendly practices, dental hygienists can make meaningful contributions to the reduction of healthcare-related pollution, enhancing both oral and overall health outcomes.

Biography

Brittany Cox is guiding dentistry into an eco-friendly future by educating the industry on groundbreaking sustainable strategies to enhance patient care and practice efficiency—all while benefiting the planet we love. Brittany Cox, MA, RDH is a key opinion leader in sustainable dentistry, dedicated to pioneering eco-friendly changes in dental practice management and healthcare systems. With a robust foundation in clinical dental hygiene practice and an

advanced educational journey—culminating in a Master's degree in Oral Health Promotion from O'Hehir University—Brittany is at the forefront of transforming dental practices through innovative environmentally conscious management and system processes. As a sought-after consultant and speaker, Brittany works with dental practices and manufacturers to set new eco-friendly standards to improve oral health outcomes. With a postgraduate certificate in leadership and coaching, she also coaches dental professionals on how to practically apply sustainable excellence in their day-to-day clinical practice. An avid content creator, Brittany leverages digital platforms to foster communities of learning and collaboration, inspiring future generations of dental professionals to prioritize earth-friendly changes that will take our industry, communities and patients into a bright and healthy future.



Brittany Cox

O'Hehir University, United States

From compliance to commitment – behavior change strategies for lasting oral health outcomes

Clinical knowledge alone does not change patient outcomes—behavior does. This course explores the science of behavior change and its direct application in modern dental practice. Designed for all dental professionals, this evidence-based program bridges psychology, communication, and clinical care to help teams move beyond telling patients what to do toward fostering sustainable health behaviors.

Participants will examine why traditional patient education often fails, how cognitive biases and social determinants influence oral health decisions, and which communication strategies measurably improve adherence, prevention, and treatment acceptance. The course emphasizes ethical, patient-centered approaches that respect autonomy while supporting long-term behavior change—benefiting patients, providers, and practice sustainability.

Biography

Brittany Cox is guiding dentistry into an eco-friendly future by educating the industry on groundbreaking sustainable strategies to enhance patient care and practice efficiency—all while benefiting the planet we love. Brittany Cox, MA, RDH is a key opinion leader in sustainable dentistry, dedicated to pioneering eco-friendly changes in dental practice management and healthcare systems. With a robust foundation in clinical dental hygiene practice and an advanced educational journey—culminating in a Master's degree in Oral Health Promotion from O'Hehir University—Brittany is at the forefront of transforming dental practices through innovative environmentally conscious management and system processes. As a sought-after consultant and speaker, Brittany works with dental practices and manufacturers to set new eco-friendly standards to improve oral health outcomes. With a postgraduate certificate

in leadership and coaching, she also coaches dental professionals on how to practically apply sustainable excellence in their day-to-day clinical practice. An avid content creator, Brittany leverages digital platforms to foster communities of learning and collaboration, inspiring future generations of dental professionals to prioritize earth-friendly changes that will take our industry, communities and patients into a bright and healthy future.



Camille Danielsen^{1*}, Divya Ramkumar²

¹Royal Gwent Hospital, Newport, South Wales, United Kingdom

²Health Education Improvement Wales, United Kingdom

Let's get things straight: A quality improvement project to assess the orientation of Upper Standard Occlusal radiographs prior to management of ectopic maxillary teeth

Background: Accurate labelling and orientation of radiographs are essential for safe patient care, particularly when imaging informs surgical management. Incorrectly labelled Upper Standard Occlusal radiographs can lead to confusion during interpretation and treatment planning, with potential implications for wrong site or inappropriate surgical management of ectopic maxillary teeth. This quality improvement project aimed to improve the accuracy of radiograph labelling and orientation through a multidisciplinary approach.

Methods: The project was undertaken within the Oral and Maxillofacial department at Royal Gwent Hospital, Newport, South Wales. Baseline data was collected over 10 weeks for all patients undergoing Upper Standard Occlusal radiography for the management of ectopic maxillary teeth. Radiographs were assessed for correct left and right labelling and orientation. A multidisciplinary team involving Orthodontics, Oral Surgery, Oral and Maxillofacial Surgery and Radiology collaborated throughout the project. Two interventions were introduced sequentially. The first targeted radiograph referrers through a concise aid card outlining five key pieces of information required to facilitate accurate radiograph processing and orientation. This was developed collaboratively following discussion with the dental radiology department at University Hospital of Wales and presented at a multidisciplinary audit day. The second intervention targeted the radiology department directly through teaching for radiographers, followed by the introduction of a visual poster highlighting key principles for correct labelling and orientation.

Results: Baseline data included 26 patients over 10 weeks. All radiographs were incorrectly labelled, while only 4 (15%) were correctly orientated. Following the first intervention, 27 patients were assessed over a further 10 weeks. Labelling remained incorrect in all cases, with only 2 (7%) radiographs correctly orientated. Following the second intervention, 36 patients were assessed over a further 10 weeks. Correct labelling improved substantially, with 27 (75%) radiographs correctly labelled. Correct orientation was achieved in 8 (22%) cases.

Conclusion: This project demonstrates the value of multidisciplinary collaboration in addressing patient safety issues that cross departmental boundaries. Referrer focused guidance alone produced little measurable improvement, whereas education and visual prompts implemented at the point where radiographs were processed resulted in a marked improvement in labelling accuracy. Simple, low cost interventions can therefore produce meaningful improvements in clinical processes, supporting more efficient treatment planning and reducing the risk of surgical error. Sustainable quality improvement requires engagement of all teams involved in the patient pathway, with interventions targeted towards the underlying cause of the problem.

Biography

Camille Danielsen is currently a Dental Core Trainee 3 in Oral and Maxillofacial Surgery, having completed foundation training and two years of Oral and Maxillofacial Surgery. She has a keen interest in Oral Surgery and hopes to progress into Specialty Training, building on the strong foundations developed throughout training. She strives to provide a calm, friendly and patient centred approach to care.

Charles Stewart-Syme^{1*}, Grigorios Thermos², Timothy Liu³, Keith D. Hunter²

¹Dental School, University of Liverpool, Liverpool, United Kingdom

²Aintree University Hospital NHS Foundation Trust, Liverpool, United Kingdom

³University of Liverpool and Liverpool Clinical Laboratories, Liverpool, United Kingdom



Oral syphilis with microscopic features suggestive of lymphoproliferative disorder: A case report

Background: Syphilis remains a well-known diagnostic mimic with highly variable clinical and histopathological manifestations. Oral involvement is uncommon and may present significant diagnostic difficulty, particularly when histologic features simulate lymphoproliferative disease. We report a case of oral syphilis presenting as an ulcerative lesion of the lip with unusual microscopic findings suggestive of a lymphoid neoplasm.

Case presentation: A 70-year-old male presented to the OMFS clinic with a 2-week history of a crusted lower lip ulcer and lymphadenopathy. With a provisional diagnosis of squamous cell carcinoma, an incisional biopsy was performed. Histopathological examination demonstrated a dense, diffuse subepithelial inflammatory infiltrate composed predominantly of lymphocytes and plasma cells, with focal architectural effacement. The infiltrate exhibited a sheet-like growth pattern with multinucleated, pleomorphic plasma cells, scattered large atypical lymphoid cells and increased mitotic activity, raising concern for a lymphoproliferative disorder. Focal perivascular inflammation and endothelial swelling were present in deeper areas but initially considered nonspecific. Immunohistochemical analysis revealed a mixed B- and T-cell population, polyclonal plasma cells and few scattered EBER-positive lymphoid cells.

After the initial mis-diagnosis, the patient was treated with intralesional steroid injections with no success and was planned for excision of the lesion and repair with a local flap.

The patient presented to A&E several weeks later with systemic symptoms. A swab obtained from the ulcerative lesion was submitted for polymerase chain reaction (PCR) analysis and

was positive for *Treponema pallidum*. Subsequent serological investigations confirmed active syphilitic infection.

Discussion and conclusion: This case underscores the marked histopathological variability of oral syphilis and its potential to closely mimic plasma cell-rich lymphoproliferative disorders. Recognition of this diagnostic pitfall is essential for pathologists, particularly when evaluating oral ulcerative lesions with dense lymphoid infiltrates. A high index of suspicion and appropriate use of ancillary studies and serology are critical to ensure accurate diagnosis and appropriate patient management.

Biography

Charles Stewart-Syme graduated from Bristol Dental School in 2021, completed a Foundation Year in Sheffield before working as a Maxillofacial SHO at Queen Alexandra Hospital, Portsmouth. Stewart-Syme moved to Australia in 2023, working as a dentist in Sydney and Melbourne for 2 years, and is now a Dental Core Trainee at Liverpool Dental Hospital in the Oral Surgery, Oral Medicine and Oral Pathology Departments.



Emily Waters*, Karunakar Prabhu

Ipswich Hospital – East Suffolk and North Essex
Foundation Trust, United Kingdom

A rare presentation of Plasma Cell Gingivitis (PCG)

A 77-year-old female patient was referred to the Oral Surgery department by her general dentist on the two-week-wait (2WW) pathway. She complained of soreness and swelling affecting the upper labial gingivae for the past 6 months. Her dentist had reported that the area was tender to palpation with an absence of bleeding, and no improvement was noted following treatment with antibiotics and antiseptic mouth rinse. In terms of her medical history, she had chronic obstructive pulmonary disease, angina and a history of breast cancer. Her medications included inhalers, GTN spray, aspirin, nicorandil and omeprazole. She had no known allergies and was a non-smoker.

On examination, extra-oral assessment was unremarkable with no palpable lymphadenopathy. Intra-orally, there was red hyper-granulomatous swelling of the upper labial gingivae spanning UR3-UL3.

Following clinical assessment, an urgent 2WW biopsy under local anaesthetic was arranged, in addition to clinical photography and blood tests (including full blood count, HbA1c, zinc, iron, and urea & electrolytes). Prescriptions for doxycycline and betamethasone mouth rinse were also provided.

An incisional punch biopsy revealed mucosa with extensive erosion and ulceration. Severe inflammation composed mainly of lymphocytes and plasma cells was appreciated in the stroma. Congested blood vessels were noted. There was no evidence of dysplasia or malignancy. Final histological diagnosis was of inflammatory changes.

At the post-operative visit, inflammation of the upper labial gingivae persisted, and all remaining gingivae had a normal clinical appearance. The full blood count, HbA1c, and urea & electrolytes returned within normal ranges. Zinc and ferritin were slightly below the lower limit. An OPG ruled out dental pathology and a differential diagnosis of plasma cell gingivitis was then made.

Plasma Cell Gingivitis (PCG) is a rare, benign gingival disease which is non-dental plaque-induced. It is associated with hypersensitivity reactions. Clinically, there are sharply demarcated erythematous gingivae with loss of stippling. Histopathology demonstrates sub-epithelial plasma cell proliferation. PCG commonly occurs in the maxillary anterior region, and unlike plaque-induced gingivitis can involve the complete width of attached gingiva up to the mucogingival junction.

Given its potential to mimic conditions such as multiple myeloma and leukaemia, PCG requires careful assessment, accurate diagnosis, and exclusion of other inflammatory or plaque-induced gingival diseases through thorough clinical evaluation and investigation.

Biography

Emily Waters graduated from King's College London in 2024. She completed her dental foundation training in the North East of England and is currently a Dental Core Trainee in Oral Surgery at Ipswich Hospital. Prior to dentistry, Waters completed undergraduate studies in Biomedical Science at the University of Sheffield, graduating in 2020, and will soon be undertaking a second year as a Dental Core Trainee in Orthodontics & Paediatric Dentistry in the North West, and is currently undertaking the MFDS examinations.



Gulnar Dara Sethna

Department of Periodontology, Government Dental College & Hospital, Mumbai, India

The great masquerade: Chicken or the egg—endo or perio?

Endodontic–periodontal lesions remain one of the most perplexing diagnostic challenges in clinical dentistry, where determining the origin of disease often resembles the classic chicken or the egg debate. Did pulpal necrosis initiate periodontal breakdown, or did periodontal destruction secondarily compromise the pulp? Because the dental pulp and periodontal tissues are anatomically linked through the apical foramen, accessory canals, lateral canals, and dentinal tubules, pathology may spread bidirectionally, producing overlapping clinical and radiographic findings that obscure the primary source.

A primary endodontic lesion may present with pain, sinus tract drainage, isolated deep probing defects, and periapical radiolucency—features capable of convincingly impersonating periodontal disease. Conversely, advanced periodontal lesions may progress apically, affecting pulpal vitality through accessory pathways or vascular disruption. In certain cases, both processes coexist independently and merge, resulting in a true combined lesion with a more guarded prognosis. Thus, when clinicians ask Endo or Perio?, the tooth often answers, Yes.

The significance of correct diagnosis cannot be overstated. Treating a periodontal lesion with root canal therapy alone is biologically futile, while performing periodontal surgery on a primary endodontic lesion may simply add trauma to confusion. Therefore, management must begin not with treatment, but with identification of the initiating pathology.

This presentation will discuss the biological communication pathways between pulp and periodontium, contemporary classification of endodontic–periodontal lesions, and a practical diagnostic protocol based on pulp vitality testing, periodontal probing patterns, radiographic

assessment, cone-beam imaging when indicated, and restorability analysis. Evidence-based treatment sequencing for primary endodontic, primary periodontal, and combined lesions will also be reviewed.

Endodontic–periodontal lesions demonstrate that oral disease rarely respects academic boundaries. They challenge clinicians to think critically, investigate systematically, and resist the temptation of reflex treatment. In this enduring chicken-or-the-egg dilemma, the answer matters—because prognosis, treatment success, and tooth retention depend entirely on knowing who laid the first lesion.

Biography

Dr. Gulnar Sethna is an alumna of the prestigious Government Dental College Mumbai, which she joined in 1989. Following BDS, Sethna went on to do the MDS in Periodontology from KCDS, Bangalore and trained in Implantology from SDM, Dharwad. With a vast experience of more than 25 years of dental practice, Sethna had a decade long stint in the Indian Army and has served in various corners of the country. Currently appointed as faculty in her alma mater, GDC, Mumbai, Dr. Gulnar has several publications in national and international journals. Sethna's areas of special interest include periodontal plastic surgery, aesthetic dentistry and dental implants.



Gustavo Feser

Periodontal Chair, School of Dentistry, National University of Rosario, Rosario, Santa Fe, Argentina

Evaluation of periodontal healing in patients with stage 3 and 4 periodontitis: Long-term multivariate analysis

Periodontitis is a chronic, multifactorial, inflammatory infectious disease caused by specific bacteria; it involves chronic inflammation that leads to the destruction of the tooth-supporting apparatus and tooth loss. It is also associated with systemic diseases that can be severe in some cases. The host response to the presence of bacteria triggers clinical symptoms such as periodontal pockets, bleeding on probing, gingival recession, increased tooth mobility, pain, and loss of function. The latest clinical guidelines from the European Federation of Periodontology (EFP) emphasize that the primary goal of periodontal therapy is to control inflammation by eliminating bacterial biofilms and hard deposits—such as plaque and calculus—which are key factors in periodontal disease. This is achieved through professional mechanical instrumentation using manual or ultrasonic instruments. A patient-centered approach that takes into account both oral and systemic factors represents the current gold standard in periodontal treatment. Following periodontal treatment, personalized supportive periodontal care is essential to prevent disease progression. This study presents a 10-year longitudinal, retrospective evaluation of periodontal treatment in patients diagnosed with stage 3 and 4 periodontal disease, focusing on current non-surgical therapy options and incorporating a treatment method introduced in recent years known as BGT (Biofilm-Guided Therapy). The variables studied and presented here include: periodontal healing achieved via the various methods employed such as probing depth, attachment gain and bleeding on probing, progression of tooth loss, bone attachment gain, evolution of furcation lesions (specifically grades 2 and 3), time spent on each disinfection method and patient acceptance and personal feedback regarding each therapeutic option. The BGT protocol proved effective in several aspects of treating the periodontal diseases under study.

Biography

Gustavo Feser studied at the Faculty of Dentistry of the National University of Rosario and graduated in 1994, and is a Professor at this University, holding a PhD in dentistry, Researcher Category III and Co-director of the Research Area. Gustavo is a Specialist in Periodontics by the Argentine Society of Periodontology, author of research and clinical works in national and international journals, Member of the Latin American Network for Community Research on Periodontal Diseases, President of the Periodontics and Implant Group of the Argentine Society of Dental Research (IADR), Director of the PERIOTEAM5 clinical group and research in periodontics and implants, and Evaluator of research work at the Argentine Society of Dental Research.



Houda El Ayachi*, Mohammed Farouk, Oussama Bentahar

Faculty of Medicine, Pharmacy and Dentistry, Sidi Mohammed Ben Abdellah University, Fez, Morocco

Amlodipine-associated gingival overgrowth: A multidisciplinary periodontal management approach

Background: Amlodipine is a third-generation dihydropyridine calcium channel blocker widely prescribed for the management of hypertension and angina. Gingival overgrowth is a well-documented adverse effect that may compromise esthetics, oral hygiene, periodontal health, tooth position, and masticatory function. Its management may require a combination of pharmacological modification, nonsurgical periodontal therapy, and surgical intervention.

Case Presentation: A 55-year-old woman was referred to the Department of Periodontology at the University Hospital of Rabat with a chief complaint of generalized gingival enlargement. Clinical and periodontal examination revealed significant gingival overgrowth associated with amlodipine therapy, with local factors contributing to plaque accumulation and inflammation.

Management and Outcome: Initial treatment consisted of comprehensive nonsurgical periodontal therapy, including oral hygiene instruction, scaling, and root surface debridement. Following consultation with the patient's physician, amlodipine was substituted with an alternative antihypertensive medication. Persistent gingival enlargement was subsequently managed surgically. The patient was enrolled in a regular supportive periodontal therapy program, with reinforcement of oral hygiene measures and periodic periodontal reassessment. A favorable clinical response was observed, with stable periodontal conditions and no significant recurrence of gingival overgrowth throughout a 2-year follow-up period.

Conclusion: Amlodipine-associated gingival overgrowth can be successfully managed through an individualized, multidisciplinary approach combining effective plaque control, nonsurgical periodontal therapy, appropriate modification of the offending medication, and surgical treatment when indicated. Long-term supportive periodontal therapy is essential for maintaining clinical stability and minimizing the risk of recurrence.

Biography

Dr. Houda El Ayachi obtained her Doctorate in Dental Medicine in 2015 from the Faculty of Dental Medicine of Rabat, Morocco. She subsequently completed residency program before pursuing her specialization in Periodontology, which she obtained in 2022. She then worked as a Periodontology specialist at the CCTD in Rabat. In 2024, she joined Sidi Mohamed Ben Abdellah University, Fez, Morocco, as an Assistant Professor of Periodontology at the Faculty of Medicine, Pharmacy and Dental Medicine. She is the author of several scientific articles in the field of Periodontology.



Houda El Ayachi*, Mohammed Farouk, Oussama Bentahar

Faculty of Medicine, Pharmacy and Dentistry, Sidi Mohammed Ben Abdellah University, Fez, Morocco

When conservative periodontal therapy is enough: Complete resolution of pregnancy-associated gingival enlargement

Background: Pregnancy is associated with significant hormonal changes that can modify the gingival response to local irritants. Pregnancy-associated gingivitis is common and may occasionally present as localized gingival enlargement, commonly referred to as a pregnancy tumor or pyogenic granuloma. Although plaque and calculus are the primary local contributing factors, hormonal alterations may exacerbate the inflammatory response. Management ranges from nonsurgical periodontal therapy to surgical intervention, depending on the severity and persistence of the lesion.

Case Presentation: A 32-year-old woman presented with localized gingival enlargement that had developed during pregnancy and persisted after delivery. Clinical examination revealed gingival inflammation associated with localized gingival overgrowth. Given the clinical presentation, a conservative nonsurgical approach was initially selected.

Treatment and Outcome: The patient received comprehensive nonsurgical periodontal treatment, including professional plaque and calculus removal, oral hygiene instruction, and reinforcement of effective plaque control. No surgical intervention was performed. Progressive reduction of the gingival enlargement was observed during follow-up, ultimately resulting in complete regression of the lesion. The patient was subsequently enrolled in a supportive periodontal therapy program.

Conclusion: This case highlights that pregnancy-associated gingival enlargement may resolve completely following adequate nonsurgical periodontal management, even when the lesion persists postpartum. Effective plaque control combined with regular supportive periodontal therapy can play a crucial role in achieving and maintaining long-term periodontal stability and may help avoid unnecessary surgical intervention.

Biography

Dr. Houda El Ayachi obtained her Doctorate in Dental Medicine in 2015 from the Faculty of Dental Medicine of Rabat, Morocco. She subsequently completed residency program before pursuing her specialization in Periodontology, which she obtained in 2022. She then worked as a Periodontology specialist at the CCTD in Rabat. In 2024, she joined Sidi Mohamed Ben Abdellah University, Fez, Morocco, as an Assistant Professor of Periodontology at the Faculty of Medicine, Pharmacy and Dental Medicine. She is the author of several scientific articles in the field of Periodontology.



Hunayda Abdulmula*, Linzi Maybin

Yorkshire and Humber Deanery, Yorkshire, United Kingdom

Targeted oral health promotion in children with additional needs: Experiences from a school-based outreach programme

Oral health inequalities remain a significant challenge for children with special educational needs (SEN), who may experience higher rates of dental disease and reduced access to preventive care. The Happy Teeth initiative aimed to deliver tailored oral health education and improve engagement with dental services in SEN settings.

As part of the project, sessions were delivered to children aged 3–18, providing interactive toothbrushing guidance, resources, and referrals for those requiring further care. Observations demonstrated high engagement and reinforced the importance of early intervention and collaboration with school staff.

Data collected included participation rates, engagement feedback, and preliminary oral health outcomes, demonstrating the impact of structured, school-based oral health interventions. The project illustrates the importance of multidisciplinary teamwork, adaptation to individual needs, and community-based outreach in promoting oral health equity.

This oral presentation will discuss the design, delivery, and lessons learned from the initiative, providing insights for dental professionals, educators, and community practitioners seeking effective strategies for outreach in vulnerable populations.

Biography

Hunayda Abdulmula graduated from the University of Leeds in 2024 and completed Dental Foundation Training in West Yorkshire, during which she took part in community-based oral health promotion projects. She is currently a Dental Core Trainee within the Oral and Maxillofacial Surgery Department at Leeds Teaching Hospitals NHS Trust. Her clinical interests include surgery, the management of complex patients, and delivering high-quality healthcare to vulnerable and underserved populations.



Ibrahim Ali^{1*}, Hanieh Javidi²

¹Oral and Maxillofacial Surgery, Manchester University NHS Foundation Trust, Manchester, United Kingdom

²Orthodontics, Manchester University NHS Foundation Trust, Manchester, United Kingdom

Facial soft-tissue injuries associated with dental trauma: A decision-making framework for dental practitioners

Background: Facial soft-tissue injuries frequently accompany dental trauma and may involve the lips, cheeks, peri-oral tissues, or extra-oral skin. While dental practitioners routinely assess dento-alveolar injuries, confidence in the assessment and management of associated facial lacerations is variable. Inappropriate referral increases pressure on secondary care; conversely, inappropriate primary closure risks infection, poor aesthetic outcomes, neurovascular injury, or missed co-existing head injury.

Objective: To develop a practical, safety-focused decision-making framework to support dental practitioners in assessing, initially managing, and appropriately escalating facial soft-tissue injuries associated with dental trauma to oral and maxillofacial surgery (OMFS) services. **Methods:** A narrative clinical review was undertaken using current guidance and published literature relating to facial laceration assessment, wound biology, referral criteria, and closure techniques. Findings were synthesised into a structured clinical pathway for dental settings, supported by illustrative cases of facial soft-tissue trauma managed in secondary care.

Results: Key decision points identified include: injury mechanism and timing; wound contamination; tetanus status; medical risk factors; safeguarding concerns; head injury red flags; anatomical site; wound depth; tissue loss; neurovascular involvement; and patient cooperation. The proposed pathway distinguishes wounds suitable for primary dental care management from those requiring urgent hospital referral. Practical principles include early assessment, thorough wound irrigation, tension-free tissue approximation, appropriate suture selection, structured safety-netting advice, and recognition of high-risk anatomical and systemic features.

Conclusion: Facial soft-tissue injuries should be considered an integral part of dental trauma assessment, not an adjunct to it. A structured decision-making framework can support dental practitioners in confidently identifying minor wounds suitable for local management while ensuring timely and appropriate referral of complex or high-risk injuries to OMFS. This approach has the potential to improve patient safety, optimise aesthetic outcomes, and support more appropriate use of secondary care services.

Biography

Ibrahim Ali is a Dental Core Trainee in Oral and Maxillofacial Surgery at Manchester University NHS Foundation Trust, rotating across Manchester Royal Infirmary and Wythenshawe Hospital. He holds a BDS from the University of Manchester and Membership of the Faculty of Dental Surgery (MFDS) from the Royal College of Surgeons, has presented research at international conferences and has work submitted for publication in Dental Update. His clinical interests include oral surgery, dental traumatology, and orthodontics.



Ibrahim Rana^{1*}, Nizar Mhani²

¹Cwm Taf Morgannwg University Health Board, Wales, United Kingdom

²Aneurin Bevan University Health Board, Wales, United Kingdom

Utilising Artificial Intelligence (AI) systems to enhance the consenting journey of orthognathic patients

Aim: To enhance patient understanding of the orthognathic surgery consent process, using an AI-generated educational video.

Background: Digital education is transforming how patients access and understand healthcare information. This project demonstrates how AI can support the consent process by transforming traditional patient information leaflets into engaging, visually intuitive educational content. A meta-analysis by Galmarini et al. found that video-based education significantly improves patient comprehension compared with written information ($k = 5$, Hedges' $g = 0.65$, 95% CI [0.48, 0.82], $p < 0.001$). This is particularly relevant to orthognathic patients, who are required to understand complex surgical procedures and their potential risks and benefits before providing informed consent.

Methods: An AI-driven, multimodal workflow was developed to transform an orthognathic surgery patient information leaflet into a dynamic educational video. ChatGPT was utilised to refine the educational script with a focus on patient comprehension. Gemini and Nano Banana generated illustrations for surgical procedures and common postoperative risks, such as facial swelling. Midjourney was used to design animation-styled avatars, which were subsequently integrated into the final video using the HeyGen platform.

Results: An AI-generated patient education video was developed covering the orthognathic treatment pathway from planning through to surgery and recovery. The video is currently being prepared for implementation with patients undergoing orthognathic treatment. Thematic analysis of patient and staff feedback is ongoing to explore its perceived usefulness and impact on the consenting process.

Conclusion: This project demonstrates the potential of multimodal AI to transform complex clinical information into engaging, patient-centred educational content. By complementing clinician-led discussions, AI-generated resources may offer a novel approach to supporting understanding throughout the orthognathic consent journey.

Biography

Ibrahim Rana is a Dental Core Trainee with experience in Oral and Maxillofacial Surgery (OMFS) and Paediatric Dentistry, with a strong interest in orthodontics. Rana will undertake a DCT2 post incorporating orthodontics and OMFS at Morriston Hospital, Swansea, the main cleft palate centre in Wales. Ibrahim has a strong interest in quality improvement, research and healthcare innovation, particularly the use of artificial intelligence to enhance patient education. He is developing his leadership experience through the British Dental Association, helping organise educational events and representing the views of the dental profession.



Karina Dobрева

Student, Faculty of Dental Medicine, Medical
University – Varna, Varna, Bulgaria

Interrelationships between orthodontics, orofacial function, airway, sleep, and posture

Background: Orthodontics has traditionally focused on dental alignment, occlusal relationships, and facial esthetics as primary treatment objectives. Contemporary literature-based evidence indicates that craniofacial morphology is associated with broader functional domains, including airway characteristics, breathing patterns, orofacial muscle function, sleep quality, and postural adaptation. Conventional orthodontic assessment may overlook clinically relevant interactions that influence the development of malocclusion, treatment stability, and overall patient long-term outcomes. Increasing attention has been directed toward a more integrated, function-oriented approach that emphasizes the role of interdisciplinary considerations in orthodontic diagnosis and treatment planning.

Aim: This study aims to evaluate and synthesize contemporary peer-reviewed evidence on the interrelationships among orthodontics, orofacial function, airway characteristics, sleep, and postural adaptation, and their implications for diagnosis, treatment planning, and long-term stability in orthodontic care.

Materials and Methods: A structured literature review was performed using the PubMed, Scopus, and Web of Science databases. Systematic reviews, meta-analyses, clinical studies, and consensus statements published between 2015 and 2026 were identified based on keywords. Extracted data were qualitatively synthesized to identify consistent patterns and clinically relevant associations.

Results: The reviewed evidence demonstrated complex interrelationships between craniofacial morphology and multiple functional domains relevant to contemporary

orthodontic care. Patients presenting with transverse maxillary deficiency, mandibular retrusion, increased vertical facial pattern, and chronic oral breathing frequently exhibited altered airway characteristics, impaired nasal respiration, and dysfunctional orofacial muscular patterns. Functional disturbances, including atypical swallowing, altered tongue posture, lip incompetence, neuromuscular imbalance, and restricted lingual mobility associated with ankyloglossia, were consistently associated with malocclusion development, impaired craniofacial growth patterns, compromised treatment stability, and increased susceptibility to post-treatment relapse.

Current evidence also indicates that craniofacial structure, tongue posture, and upper airway morphology may influence sleep quality and predisposition to sleep-disordered breathing, including obstructive sleep apnea, particularly during active growth and development. In parallel, adaptive cranio-cervical postural compensations have been described in selected orthodontic populations, reflecting broader biomechanical and functional interactions between craniofacial structures and body posture. However, substantial heterogeneity persists across study methodologies, diagnostic protocols, and outcome measures, limiting definitive causal interpretation and universal clinical extrapolation.

The current evidence supports integrating airway evaluation, orofacial functional assessment, considerations of lingual mobility, and interdisciplinary collaboration into orthodontic diagnosis and treatment planning, extending therapeutic objectives beyond conventional dental alignment and occlusal correction alone.

Conclusions: Current evidence supports a broader interdisciplinary perspective in orthodontics, recognizing the complex interactions between craniofacial morphology, airway characteristics, orofacial function, sleep-related factors, and postural adaptation. Integrating functional assessment, airway evaluation, lingual mobility analysis, and sleep-related screening into orthodontic diagnosis and treatment planning may improve treatment stability, enhance patient-centered outcomes, and enable more comprehensive long-term care. Nevertheless, substantial heterogeneity across existing studies highlights the need for standardized diagnostic protocols, prospective longitudinal research, and stronger interdisciplinary evidence to clarify causal relationships further and optimize clinical decision-making in contemporary orthodontics.

Keywords: Orthodontics, Malocclusion, Mouth Breathing, Ankyloglossia, Tongue, Obstructive Sleep Apnea, Posture, Craniofacial Abnormalities.

Biography

Karina Dobрева studies dentistry at the Faculty of Dental Medicine, Medical University – Varna, Bulgaria, with a focused interest in orthodontics and dentofacial orthopedics. Recipient of the National Award Student of the Year (Healthcare), 2025; Municipality of Varna Annual Name Award (Dentistry), 2025; and the National Orthodontic Award Prof. Mutafchiev, 2025. Active

participant in international scientific sessions: 11th IDIT, 2026 (Singapore); 35th IMAB Assembly & 15th SEEC, 2025 (Bulgaria), Young Scientist Award; 18th SDM, 2025 (Bulgaria); 12th ICDO, 2025 (London); 76th EDSA Meeting, 2025 (Dublin); 29th BaSS Congress, 2025 (Belgrade); Sea and Health Festival, 2026 and 2025 (Bulgaria); and BSYSB, 2025 and 2024 (Bulgaria), Session Winner 2024. ADMS–Varna president and organizer of the SDF Student Varna, 2026, 2025 and 2024 (Bulgaria). Certified in over 120 orthodontic courses, actively involved in clinical practice and scientific publications under the supervision of specialists. Memberships: Student Council, Union of Scientists–Varna, EDSA, Alexander Study Club.



Kristie Kapp

EBITDent.co, Provo, Utah, USA

How A.I. has helped stop the dental burnout epidemic

Burnout in dentistry is no longer driven by patient care — it is driven by the growing volume of administrative, documentation, financial, and operational demands placed on dental teams. Over the past decade, practices have added layers of technology, compliance requirements, and reporting expectations without removing work, leaving dentists and teams overwhelmed, reactive, and struggling to keep up.

This course explores how practical applications of Artificial Intelligence and automation are helping dental practices reclaim time, reduce stress, and improve performance — without sacrificing quality of care or team culture. Attendees will learn how to distinguish between true A.I. (machine learning and computer vision) and advanced automation, and where each category delivers the greatest impact in a modern dental practice.

Through real-world examples, this session examines how A.I. is currently being used to streamline clinical documentation, radiographic analysis, patient intake, insurance verification, marketing analytics, accounting, budgeting, and KPI tracking. Practices using these tools are reducing after-hours work, minimizing errors, improving consistency, and freeing team members to focus on higher-value work that improves both patient experience and profitability. Led by Kristie Kapp, RDH, CEO and Co-Founder of EBITDent, this course blends more than three decades of clinical, leadership, and practice management experience with a systems-based, data-driven approach. Having worked in nearly every role in dentistry — from dental assistant and hygienist to practice owner, consultant, and multi-location CEO — Kapp brings a practical, real-world perspective to technology adoption and operational improvement.

Rather than presenting A.I. as a replacement for people, this session reframes it as a capacity-restoring tool that removes low-value work, reduces cognitive load, and supports healthier,

more sustainable teams. Attendees will leave with a clear framework for evaluating A.I. solutions, identifying where burnout is being created in their own practices, and implementing smarter systems that replace chaos with clarity and overload with control.

Biography

Kristie Kapp, RDH, is the CEO and Co-Founder of EBITDent, an analytics-driven consulting firm that helps dentist-owned practices improve performance, profitability, and team culture while reducing operational stress. With over 30 years in dentistry, Kapp has worked in nearly every role—from dental assistant and hygienist to practice owner, consultant, and CEO of a multi-location group practice. Kapp has coached practices in 48 states, specializing in KPIs, financial clarity, systems, and practical A.I. adoption. Known for a clear, real-world approach, Kapp helps practices replace chaos with structure and burnout with sustainable, data-driven growth.



Lance Lesterpearson

Croydon University Hospital, Royal Free London NHS Trust,
United Kingdom

Global dental outreach in Sri Lanka: Education, screening and multi-disciplinary collaborations

Dental healthcare access varies widely across the world. In Sri Lanka, ongoing recovery from civil conflict, economic challenges, and natural disasters has left significant gaps in oral health provision. This presentation highlights a dental outreach mission aimed at delivering essential dental care, resources, and oral hygiene education to communities with limited access to professional services. The initiative was conducted across two locations – Trincomalee and Batticaloa, located on the eastern coast of Sri Lanka – focusing on preventive care, screening, and oral health education.

The first phase included a two-day medical camp in Trincomalee, during which mobile dental units were used to provide oral examinations and oral cancer screening. Patients received oral hygiene guidance, preventative care resources, and were signposted to local dental services for further treatment. The second phase in Batticaloa involved another 2 day medical camp along with a combination of visits to schools, orphanages, and care homes, delivering education and resources while reinforcing the importance of oral health across all age groups. This presentation demonstrates how targeted outreach can empower local populations, enhance understanding of oral hygiene, and facilitate early detection of dental and oral pathologies. It also emphasises the importance of collaborative, multidisciplinary efforts in global health initiatives, highlighting how international partnerships can support regions with limited resources.

By combining education, clinical care, and community engagement, this mission aimed not only deliver immediate dental aid but also to lay the foundation for sustainable oral health improvement. Lessons learned from this initiative can guide future outreach programmes, contributing to the global effort to reduce disparities in healthcare access and outcomes.

The authors acknowledge that this research was undertaken during a two year Dental Foundation Training placement funded by NHS Workforce, Training and Education (WT&E), London Region.

Biography

Lance Lesterpearson is a second-year trainee on the Joint foundation and core training programme in London, working across general practice and Croydon University Hospital, and gaining valuable experience in Oral surgery, Orthodontics and Restorative Dentistry. Lesterpearson graduated with BDS (Hons) from Peninsula Dental School in 2024, and during his final year he was selected to represent his university at the national Dentsply Sirona RCS Edinburgh Competition. Recent achievements include completing a Diploma in Leadership and Management. Lance is committed to advancing global oral health through charitable dental initiatives.



Lucy Bennett^{1*}, Dominic Lavery²

¹DCT3 in Restorative Dentistry, Birmingham Dental Hospital, United Kingdom

²Consultant in Restorative Dentistry, Birmingham Dental Hospital, United Kingdom

Restorative management of maxillary incisors in a postradiotherapy patient

This case report presents the multidisciplinary restorative management of maxillary incisors affected by recurrent apical pathology and aesthetic compromise.

A 47-year-old male with a previous diagnosis of p16-positive squamous cell carcinoma of the tongue base, treated with chemoradiotherapy, presented with recurrent apical infection associated with previously root canal-treated maxillary incisors. The potential implications of previous head and neck radiotherapy, including the risk of osteoradionecrosis, were considered throughout treatment planning and delivery. Initial management involved non-surgical endodontic re-treatment of UR1 and UR2; however, ongoing symptoms following this procedure necessitated further investigation. A small cone CBCT identified a buccal lateral canal associated with UR1, accounting for the persistent extra-radicular infection. Surgical endodontic intervention was subsequently undertaken, including apical resection and retrograde MTA placement, resulting in uneventful healing and radiographic evidence of bone infill at one-year review. The restorative rehabilitation phase followed, adopting a staged, minimally invasive approach, progressing from disease resolution to internal and external bleaching prior to planned definitive aesthetic restoration. Care was delivered through multidisciplinary collaboration, integrating restorative, endodontic and surgical input to support safe, predictable, and aesthetic outcomes.

Biography

Lucy Bennett graduated from the University of Manchester in 2022. Following graduation, Bennett completed Dental Foundation Training in Oxford before undertaking Dental Core Training (DCT1–3) across a range of specialties, including Oral and Maxillofacial Surgery,

Paediatric Dentistry, Special Care Dentistry, and Restorative Dentistry at centres across the UK. Alongside clinical training, Bennett obtained Membership of the Royal College of Surgeons of Edinburgh (MFDS RCSEd) and a Postgraduate Certificate in Dental Education from Newcastle University, and has also completed additional postgraduate training in inhalation sedation, cone beam computed tomography (CBCT), and the Edward Jenner Leadership Programme.



Madhulika Banerjee

Vishnu Dental College, India

The mobile mouth: Smart apps in modern periodontology

Maintaining long-term periodontal stability relies heavily on patient adherence to daily home-care regimens and Supportive Periodontal Therapy (SPT) protocols. Traditionally, clinicians have depended on subjective patient recall and clinical plaque indices to evaluate home-care efficacy, often leaving a critical communication gap between chairside instructions and daily patient behaviour. The advent of smart toothbrushes paired with intelligent mobile applications bridges this divide, transforming passive oral hygiene into an active, data-driven ecosystem.

This presentation explores how mobile app integration serves as the vital link in modern periodontology. Companion applications utilize Bluetooth connectivity to translate real-time Inertial Measurement Unit (IMU) sensor data from smart toothbrushes into interactive, 3D visual models of the dental arches. Patients receive instant, in-app feedback regarding brushing duration, coverage uniformity, and excessive pressure application, a critical factor for individuals susceptible to gingival recession and cervical abrasion. Furthermore, these mobile platforms aggregate longitudinal compliance metrics, replacing vague home-care reports with objective performance trends.

For the clinician, these digital dashboards offer unprecedented insights into patient behavioural patterns, enabling highly targeted chairside interventions and personalized SPT recall intervals. By gamifying habit-building and fostering continuous engagement, mobile apps empower patients to take active control of their oral health. Ultimately, integrating smart toothbrush apps into clinical workflows redefines preventive periodontology, uniting patient-led home care with evidence-based professional management to optimize long-term clinical outcomes.

Biography

Dr. Madhulika Banerjee is an accomplished Periodontist and Oral Implantologist holding an MDS degree, alongside an MBA in Hospital and Healthcare Management from Padmashree Dr. DY Patil University. She has served as an Assistant Professor at Vishnu Dental College and actively contributes to medical education through key editorial and reviewer roles. Alongside 30+ publications, Dr. Banerjee is a recognized achiever, winning the 2021 Oral Health & Dentistry Award and the Her Ka Hunar Award in the Education Category, and has earned multiple certificates of excellence for international journal reviewing (2023–2024) and secured top rankings in periodontology poster competitions. She leverages her deep scientific expertise to advance medical communication and healthcare leadership.



Maged Ali Al-Aroomi^{1,2,3*}, Yiheng Feng^{1,2,3}, Naseem Ali Al-Worafi⁴, Jie Chen^{1,2,3}, Ning Li^{1,2,3}, Canhua Jiang^{1,2,3}, Ye Liang^{1,2,3}

¹Department of Oral and Maxillofacial Surgery, Center of Stomatology, Xiangya Hospital, Central South University, Changsha, China

²Institute of Oral Cancer and Precancerous Lesions, Central South University, Changsha, China

³National Clinical Research Center for Geriatric Disorders, Xiangya Hospital, Central South University, Changsha, China

⁴Department of Orthodontics, Faculty of Dentistry, Ibb University, Ibb, Yemen

Analysis of osteotomy distance and other predictors of osseous union following mandibular reconstruction with fibula free flap (FFF)

Objectives: Optimal contouring of fibula free flaps (FFF) for mandibulectomy often requires osteotomies. This study aimed to define criteria for initial gap width by evaluating whether postoperative gap size and other factors influence long-term osseous union on CBCT, and to identify key determinants of bone healing.

Methods: This retrospective study included 75 patients who underwent segmental mandibulectomy with FFF reconstruction from 2017 to 2024. Initial osteotomy gaps were measured at four points on postoperative CBCT scans. Osseous union was assessed using a callus scale. Demographic, anatomical, and surgical variables—including 3D-assisted planning, fibula morphology, osteotomy location, systemic comorbidities, and segment number—were analyzed using uni- and multivariate regression models.

Results: A total of 202 osteotomy sites were evaluated. The mean initial gap was 1.68 ± 0.97 mm, and gap size did not significantly predict long-term union. Complete union occurred in 50.0% of sites, partial union in 36.6%, and nonunion in 13.4%. Fibula–fibula interfaces showed significantly better healing than fibula–mandible interfaces ($p < 0.001$). Symphyseal osteotomies demonstrated superior union compared with body and angle regions. Systemic vascular comorbidities were strong negative predictors of union, whereas reconstructions using more than two segments showed improved outcomes ($p < 0.001$). Alcohol consumption negatively affected both initial gap formation and union.

Conclusions: Long-term osseous union after FFF reconstruction is influenced mainly by systemic vascular health, osteotomy location, interface type, and fibula morphology rather than initial gap width.

Biography

Dr. Maged Ali Hasan Al-Aroomi is a Doctor of Medicine and a postdoctoral researcher at the Department of Stomatology, Xiangya Hospital of Central South University, China. He earned his PhD from China Medical University and an MSc in Oral and Maxillofacial Surgery from Lanzhou University. With over 35 publications in high-impact SCI journals, his research specializes in oral and maxillofacial surgery, particularly in oral oncology, complex head and neck reconstructions, and advanced flap designs. He is a committed member of the IAOMS and a prominent contributor to international dental research.



Marta Ciechonska

Salient Bio, London, United Kingdom

The oral microbiome in clinical practice: Understanding dysbiosis and the case for integrative assessment

The oral cavity harbours one of the most complex and diverse microbial ecosystems in the human body, comprising over 700 bacterial species alongside fungi, viruses, and archaea. Far from being an isolated environment, the oral microbiome is now understood to be a dynamic regulator of both local and systemic health – and its clinical significance is increasingly difficult to ignore.

Traditional dental assessment remains largely reactive, detecting disease after structural damage has already occurred. Advances in metagenomic sequencing now make it possible to characterise the microbial communities driving that damage long before clinical signs appear. Understanding the balance between pathogenic and commensal species – including cariogenic bacteria such as *Streptococcus mutans*, periodontal pathogens of the Red Complex (*Porphyromonas gingivalis*, *Treponema denticola*, *Tannerella forsythia*), and protective commensals – offers clinicians a fundamentally new lens through which to assess oral health risk and guide preventative care.

The implications extend well beyond the mouth. The oral cavity is the primary seeding site for the gut microbiome, and chronic oral dysbiosis has been linked to a range of serious systemic conditions. *P. gingivalis* and *Fusobacterium nucleatum* can translocate into the bloodstream via inflamed gingival tissue, driving systemic inflammation associated with cardiovascular disease and atherosclerosis. Oral dysbiosis has been independently associated with insulin resistance in type 2 diabetes, and *P. gingivalis* has been detected in the brain tissue of Alzheimer's patients. These associations position the oral microbiome not as a niche concern, but as a central pillar of integrative healthcare.

For clinicians working across dentistry, functional medicine, and integrative health, this creates both an opportunity and a responsibility. Microbiome-informed assessment enables earlier identification of at-risk patients, more targeted treatment planning, and the ability to monitor the impact of interventions – dietary, pharmacological, or procedural – on microbial community structure over time. It also supports a more meaningful conversation with patients about the relationship between their oral health and their wider wellbeing.

This presentation will explore the current evidence base for oral microbiome science, examine the clinical conditions most strongly associated with oral dysbiosis, and discuss practical frameworks for incorporating microbiome data into clinical decision-making. The goal is to equip practitioners with a clearer understanding of what the oral microbiome can tell us – and how that knowledge can be translated into better outcomes for patients.

Biography

Dr. Marta Ciechonska is CEO and Co-Founder of Salient Bio, a London-based ISO 17025-accredited diagnostics laboratory specialising in microbiome health and precision diagnostics. Ciechonska holds a PhD in Microbiology and Immunology from Dalhousie University, Canada, and completed postdoctoral research at Imperial College London, where she worked within the London BioFoundry on synthetic biology and automated diagnostics platforms. Her research has been published in peer-reviewed journals including Nature Communications and Integrative Biology, accumulating over 350 citations. Since founding Salient Bio in 2020, Dr. Ciechonska has led the development of advanced microbiome testing products spanning oral, gut, and vaginal health, working closely with clinicians to support precision care. She is an Innovate UK award recipient and a recognised international speaker in the microbiome diagnostics field.



Marwa Abdalgaffar*, Vasileios Lyris

Oral and Maxillofacial Department, Victoria Hospital, NHS Fife,
Kirkcaldy, Fife, Scotland

Decompression as a conservative strategy for extensive odontogenic cystic lesions: A case series

Background: Extensive odontogenic cysts, such as dentigerous cysts and odontogenic keratocysts, can compromise adjacent vital structures and increase the risk of pathological fracture when treated with primary enucleation. Decompression offers a conservative alternative by reducing intracystic pressure, promoting bone regeneration, and enabling gradual lesion shrinkage.

Methods: This case series evaluates patients with large odontogenic cystic lesions initially managed by decompression. A drainage stent was placed to maintain cyst patency, and patients were instructed to perform daily saline irrigation. Lesion progression and bone regeneration were monitored using serial radiographic imaging.

Results: All cases showed significant reduction in cyst size, accompanied by progressive centripetal bone formation. Adjacent anatomical structures were preserved in all patients. When required, secondary enucleation was performed with reduced surgical complexity and minimal complications.

Conclusion: Decompression is an effective, minimally invasive, and bone-preserving approach for managing extensive odontogenic cystic lesions. It reduces lesion volume, lowers surgical morbidity, and facilitates safer definitive treatment, supporting its use as a first-line strategy in appropriately selected cases.

Biography

Marwa Abdalgaffar studied Dentistry at Khartoum University, Sudan and graduated in 2004, completing an internship at Khartoum teaching dental hospital. Marwa worked as a GDP in Sudan for a few years before moving to the UK, where she passed the ORE and registered with the GDC in 2015. She earned MFDS from the Royal College of Surgeons of Edinburgh in 2018, practiced as a GDP in the UK until 2023, then joined the Dental Core Training specialty program. Now in the third year, she is expanding her clinical expertise.



Masaki Minabe^{1*}, Sari Ueno¹, Saki Ishikawa², Ryota Obata¹, Junichiro Inada¹, Kazuhiko Hashimoto³, Ken Ishii⁴, Michiyoshi Kouno⁴, Takeshi Nomura¹

¹Tokyo Dental College, Department of Oral Oncology, Oral and Maxillofacial Surgery, Japan

²Tokai University School of Medicine, Department of Oral and Maxillofacial Surgery, Japan

³Tokyo Dental College, Department of Pathology, Japan

⁴International University of Health and Welfare Ichikawa General Hospital, Department of Dermatology, Japan

Multifactorial management of pediatric orofacial granulomatosis (OFG): Associations with periodontal pathogens and allergic predisposition

Background: Orofacial granulomatosis (OFG) is a chronic granulomatous disorder affecting the oral and maxillofacial region, and its etiology remains unclear. Allergic predisposition and odontogenic infection have been suggested as contributing factors; however, the clinical significance of bacterial involvement in pediatric OFG has not been fully elucidated.

Objective: To evaluate the clinical characteristics and treatment outcomes of pediatric OFG patients managed using a multifactorial therapeutic approach targeting both bacterial and allergic factors.

Methods: We retrospectively reviewed 10 pediatric patients with histologically confirmed OFG treated at Tokyo Dental College Ichikawa General Hospital. Clinical findings, oral hygiene status, allergy history, periodontal pathogen profiles, and treatment responses were analyzed. Oral hygiene was assessed using the O'Leary Plaque Control Record (PCR). Subgingival plaque samples were analyzed using quantitative real-time polymerase chain reaction to detect periodontal pathogens, including Red complex bacteria, *Fusobacterium nucleatum*, and *Aggregatibacter actinomycetemcomitans*. Management included professional oral care, oral hygiene instruction, gingivectomy, antimicrobial therapy, anti-allergic agents, corticosteroids, and topical tacrolimus when indicated.

Results: The patients ranged in age from 6 to 17 years. The lower lip was the most frequently affected site. Eruptive gingivitis during mixed dentition was observed in 8 of 10 patients, and oral hygiene was generally poor. Relatively high levels of *Fusobacterium nucleatum* were

identified in multiple cases, with co-detection of *Tannerella forsythia* in several patients. Clinical improvement was observed in all patients following individualized combined therapy. A representative adolescent case demonstrated recurrent disease associated with poor oral hygiene and symptom improvement following gingivectomy, antimicrobial therapy, and immunomodulatory treatment. Sustained remission was achieved after comprehensive management targeting both bacterial and allergic factors.

Conclusions: This pediatric OFG case series suggests that OFG may involve multifactorial mechanisms associated with allergic predisposition and periodontal dysbiosis. Multidisciplinary management focusing on oral hygiene, bacterial control, and immunological factors may contribute to favorable long-term outcomes, particularly during the tooth eruption period.

Biography

Dr. Masaki Minabe is a Lecturer in the Department of Oral Oncology, Oral and Maxillofacial Surgery at Tokyo Dental College, Japan. His clinical and research interests focus on oral medicine, particularly oral lichen planus, autoimmune blistering diseases, orofacial granulomatosis, the oral microbiome, and translational research in oral cancer. He has authored 24 peer-reviewed publications and delivered over 100 presentations at national and international scientific meetings, and currently serves as a Councilor and a member of the Oral Lichen Planus Committee and Pemphigoid Committee of the Japanese Society of Oral Medicine. He will join Newcastle University, UK, as a Visiting Researcher in 2027.



Mohammad Javad Hanifi^{1*}, Ali Heydari²

¹Department of Oral and Maxillofacial Surgery, School of Dentistry, Hamadan University of Medical Sciences, Hamadan, Iran

²Assistant Professor, Department of Oral and Maxillofacial Surgery, School of Dentistry, Hamadan University of Medical Sciences, Hamedan, Iran

Effect of collagen plug application on healing of the extraction socket after surgical removal of a partially impacted mandibular third molar: A randomized split-mouth clinical trial

Objectives: Surgical extraction of partially impacted mandibular third molars is one of the most common procedures in oral surgery. Due to limited soft tissue coverage, primary closure is often incomplete, which can result in prolonged postoperative complications such as edema, delayed healing, and food impaction. This study aimed to evaluate the effectiveness of a bovine-derived collagen plug in enhancing soft tissue healing and socket preservation following surgical extraction.

Materials and Methods: This randomized split-mouth clinical trial included 30 patients requiring bilateral surgical extraction of partially impacted lower third molars. Each patient underwent two surgeries with a 4-week interval; one side received a bovine collagen plug (Bone Protect Cone, Dentegris, Germany) into the extraction socket, while the contralateral side served as the control. Postoperative parameters—edema (linear measurements), pain (Visual Analog Scale), socket dimensions (caliper), and maximal interincisal mouth opening—were assessed on days 2, 7, and 14. Data were analyzed using SPSS v22 with a significance threshold of $p < 0.05$.

Results: Collagen plug application significantly reduced edema on days 2 and 7 ($p < 0.001$), but not at day 14 ($p > 0.05$). The socket dimension was significantly smaller in the collagen group at all time points ($p < 0.001$). There was no statistically significant difference in postoperative pain scores or mouth opening between groups ($p > 0.05$).

Conclusion: Collagen plugs improve early soft tissue healing and reduce socket dimensions following third molar surgery. This low-cost, biocompatible intervention can be recommended as a supportive approach to enhance healing in cases of partial impaction where primary closure is difficult.

Keywords: Partially Impacted Mandibular Third Molar, Collagen Plug, Extraction Socket, Wound Healing, Edema, Split-Mouth Clinical Trial.

Biography

Dr. Mohammad Javad Hanifi is a general dentist who graduated from Hamadan University of Medical Sciences in 2021. He completed his dental thesis under the supervision of Dr. Ali Heydari, a prominent oral and maxillofacial surgeon. With an academic background from Iran's National Organization for Development of Exceptional Talents (NODET), Dr. Hanifi is deeply committed to precision and patient-centered care. Hanifi has treated over 7,000 patients in leading dental clinics in Tehran and currently runs a private practice in Alborz Province. His clinical focus is on delivering scientifically sound, ethical, and high-quality dental treatments.



Nadia Razavi*, Laura Smith, Kehinde Fatosin

Birmingham Community Healthcare NHS Trust,
United Kingdom

Inclusion health in action: Delivering dental care for patients with bleeding disorders in a specialist clinic

Background: Patients with inherited bleeding disorders face challenges in accessing dental care due to increased bleeding risk. The bleeding disorders clinic operates under a service level agreement between the Birmingham Community Healthcare Special Care Dentistry (BCHC SCD) team and Queen Elizabeth Hospital (QEH). This case series highlights the complexity of dental management within this cohort.

Case 1: A 68-year-old male was seen by the clinic. Medically, the patient has severe chronic refractory immune thrombocytopenia (ITP) with suspected intracranial haemorrhage. Dentally, the patient presented with generalised periodontitis, attrition into dentine posteriorly, and asymptomatic periapical pathology of the lower left first permanent molar (LL6). Alongside the haematology team, a treatment plan was developed. This included periodontal disease treatment and restoration of the worn teeth. Bleeding was managed with pre- and post-operative tranexamic acid (TXA) and local haemostatic measures. Definitive treatment of LL6 was delayed pending investigation of the suspected intracranial bleed.

Case 2: A 90-year-old female was seen by the clinic. Medically, the patient has type 2 von Willebrand's disease and requires ambulance transport. Dentally, the patient presented with generalised periodontitis and a grossly carious lower left second molar (LL7) with acute apical periodontitis. Alongside the haematology team, a treatment plan was developed, including extraction of the LL7. Bleeding was managed with pre-operative desmopressin, local haemostatic measures and post-operative TXA orally.

Case 3: A family of four siblings aged 20–36 years were reviewed. Medically, the brothers have severe haemophilia A, and the sister is a low-level carrier due to their mother being a carrier. The brothers self-administer prophylactic factor replacement and take TXA as required. The sister, although a carrier, requires intravenous desmopressin or factor VIII cover for invasive dental procedures.

Conclusion: These cases highlight the importance of multidisciplinary planning to deliver safe, inclusive dental care for patients with bleeding disorders.

Biography

Nadia Razavi is a Dental Leadership Fellow at NHS England, contributing to projects that improve access to NHS dental care. She is also a Dental Core Trainee 3 in Oral Surgery, Oral Medicine and Sedation at Birmingham Dental Hospital. She has experience across primary, urgent, community and hospital-based dental care, with particular interests in orthodontics and paediatric dentistry.



Najmehsadat Valedsaravi*

Department of Periodontics, Faculty of Dentistry, Mazandaran
University of Medical Sciences, Sari, Iran

Immediate implant placement in infected sites: Clinical outcomes, challenges, and protocol optimization

Background: Immediate implant placement in infected extraction sockets remains clinically challenging because residual microorganisms and inflamed tissues may compromise osseointegration. Nevertheless, current evidence suggests that infection alone is not an absolute contraindication when meticulous surgical and regenerative protocols are followed.

Objective: To review the clinical outcomes of immediate implant placement in infected sites and identify the key measures associated with predictable treatment.

Materials & Methods: A focused review of clinical studies evaluating immediate implant placement in sockets affected by periodontal or endodontic infection was conducted. Implant survival, marginal bone changes, soft-tissue healing, postoperative infection, and protocol-related factors were assessed. Particular attention was given to patient selection, complete debridement, socket irrigation, primary stability, grafting, antibiotic use, and loading strategy.

Results: Published evidence indicates that immediate implants placed in carefully treated infected sockets can achieve survival rates comparable to those placed in non-infected sites. Favorable outcomes are associated with thorough removal of granulation tissue, copious irrigation, adequate apical or palatal bone for primary stability, and appropriate management of the peri-implant gap. Residual infection, inadequate stability, uncontrolled systemic disease, smoking, and poor plaque control may increase the risk of early failure and postoperative complications. Evidence supporting routine systemic antibiotics remains inconsistent.

Conclusion: Immediate implant placement in infected sites can be a predictable treatment option in selected patients. Success depends primarily on rigorous decontamination, stable three-dimensional implant positioning, appropriate regenerative measures, and careful follow-up. Well-designed prospective studies with standardized protocols and longer observation periods are still required.

Keywords: Immediate implant placement; infected extraction socket; debridement; implant survival; osseointegration

Biography

Dr. Najmehsadat Valedsaravi is an Assistant Professor of Periodontics at Mazandaran University of Medical Sciences and a board-certified periodontist and implant surgeon. She holds a DDS, an MSc in Periodontology, and a Fellowship in Laser Dentistry from RWTH Aachen University. She founded and leads the Implant Unit at Sari Dental School. Her clinical and research interests include immediate implant placement, periodontal regeneration, laser dentistry, and platelet-rich fibrin applications in implant therapy.



Naseem Ali Al-Worafi^{1*}, Akram Al-Nasri², Leena Ali Al-Warafi³, Majedh Abdo Ali Alsomairi¹, Enas Senan Alyafrusee¹, Najah Alhashimi⁴, Bowen Zheng¹, Yi Liu¹

¹Department of Orthodontics, School and Hospital of Stomatology, China Medical University, Shenyang Clinical Medical Research Center of Orthodontic Disease, Shenyang, PR China

²Hefei Huamei Jiahuai Dental Clinic, Hefei, Anhui, China

³Department of Orthodontics, Faculty of Dentistry, First Affiliated Hospital of Zhengzhou University, Zhengzhou, PR China

⁴Chief of Orthodontics Division at Hamad Medical Corporation and Assistant Professor, Assistant Dean for Student Affairs, College of Dental Medicine, Qatar University, Doha, Qatar

Effect of maxillary molars distalization using clear aligners (CAs) and fixed orthodontic appliances (FAs) on the positional and dimensional temporomandibular joint (TMJ) parameters: A three-dimensional comparative study

Objective: The use of clear aligners (CAs) for orthodontic treatment has substantially increased in recent decades. However, limited empirical evidence exists regarding their potential effects on the temporomandibular joint (TMJ). The aim of this study was to assess the effect of maxillary molar distalization on the positional and dimensional TMJ parameters between CAs and conventional fixed orthodontic appliances (FAs) in skeletal class II malocclusion.

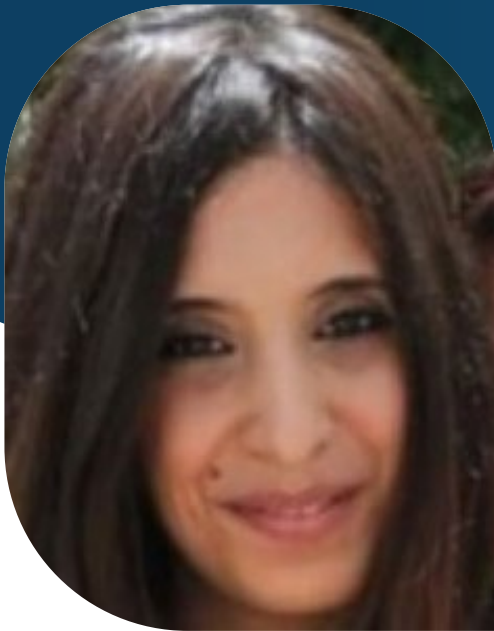
Methods: This is a retrospective cohort study examined 70 adult patients with skeletal class II malocclusion with similar baseline characteristics based on American Board of Orthodontics (ABO) discrepancy index scores. The patients were treated by maxillary distalization movement by CAs or FAs, of which there were two equal groups of 35 patients were included in each group. CBCTs on TMJs were performed before and after treatment through Anatomage Invivo Dental 6.0. The measured parameters included inclination, position, condyle and articular fossa dimensions, and the volumetric joint spaces.

Results: In both groups, linear measurements of the maxillary molar position revealed significant improvement after treatment ($P < 0.001$). Regarding TMJ parameters, intra-group comparisons revealed significant changes in FA group in the anteroposterior condylar inclination and condylar position across the three planes. Additionally, the pretreatment-centric condylar position in the glenoid fossa was 45.7% and 40% in the CA and FA groups, respectively. After treatment, these percentages changed to 51.4% and 31.4%, respectively. In inter-group comparisons, significant changes were noted in the mediolateral condylar position, which was more inward in the FA group than the CA group.

Conclusion: The FA group had more significant dimensional and positional changes in the mandibular condyle than the CA group; nevertheless, the changes are considered clinically negligible.

Biography

Dr. Naseem Ali Abdo Al-Worafi is an accomplished specialist in Clinical Stomatology, holding both a Master's degree and a PhD in Orthodontics from prestigious institutions in China. With a profound academic and clinical background, Al-Worafi has developed extensive expertise in advanced orthodontic biomechanics and modern dental care. A dedicated researcher, Dr. Al-Worafi has published numerous high-impact papers in SCI-indexed journals, contributing significantly to the global body of dental literature, and remains committed to advancing the field of orthodontics through evidence-based practice and international academic collaboration.



Nidal Elmoutawakkil*, Oumayma Hafssa Wahid, Oussama Bentaher

Faculty of Medicine, Pharmacy and Dentistry, Sidi Mohammed Ben Abdellah University, Fez, Morocco

Computer-aided design and fabrication of a pediatric Fox Plan in PLA: A case report

Because of the loss of teeth, all the manducatory functions are affected: phonation, swallowing and mastication, which generates several disorders and parafunction that affect the physical growth and maturation of the patient; in fact, the alteration of aesthetics degrades the image of the child of himself, especially as the infant environment to which he adheres (friends, neighbors and classmates) does not assimilate the early loss of teeth making schooling of these young patients difficult. As a result, the dentist participates not only as such but also as a therapist to facilitate the integration of the new prosthesis.

Prosthetic management in children and adolescents is complicated by the reduction of the perimeter of the mouth, the importance of the psychological approach to facilitate the patient/practitioner exchange, but also the high esthetic expectations of the patients. The case of our patient where the alteration of the general state affects the oral anatomical elements.

Auto-immune Lymphoproliferative Syndrome (ALPS) is benign, early-onset (on average before five years), combines multifocally lymphadenopathy, splenomegaly and possibly hepatomegaly; this multi-organ involvement is reflected by an alteration of all the manducatory functions of the affected patients, but xerostomia, immunosuppression, and hypofibrinogenemia reduce the quality of osteomucosal bearing surfaces; in addition to the low salivary viscosity, retention and prosthetic stability become a real challenge. In some more complex cases, where age (13 years) and microstomia added to the arsenal of challenges, it becomes necessary to adapt the instruments to reduced pediatric dimensions. The objective of this work is to demonstrate through a clinical case the prosthetic management of a patient suffering from this syndrome, through the computer-aided design and manufacturing of an individualized Fox plan according to the patient's proportions made in PLA (polylactic acid) to adjust the occlusion plane appropriately.

Biography

In June 2015, Nidal graduated with a Doctorate in Dental Medicine from the Faculty of Dentistry in Casablanca, receiving highest honors and congratulations from the jury, and graduated with a Certificate in Implantology and Maxillofacial Surgery from Paul Sabatier University in Toulouse, France. A year after, graduated with a University Diploma in Implantology and Maxillofacial Surgery from Paul Sabatier University in Toulouse (valedictorian). In June 2018, she graduated in C.E.S.U. (Certificate of Advanced Studies in Dental Occlusodontics) from the University of Marseille, France, and accomplished a CAD-CAM Dental Certificate from Smile Academy in Casablanca. From 2013 to 2017 Nidal worked full-time in a private practice as a dentist in a multidisciplinary dental center. From 2017 to 2021 was a full-time resident in the removable prosthodontics department of the dental consultation and treatment center at Ibn Rochd University Hospital in Casablanca; and obtained the National Diploma in Dental Prosthodontics (DNSO) from the Faculty of Dentistry in Casablanca in June 2021. Finally, in October 2025 she started working as an Assistant Professor in the Department of Removable Prosthodontics and Maxillofacial Surgery at the Faculty of Medicine, Pharmacy, and Dentistry in Fez (Sidi Mohammed Ben Abdellah University).



Nidal Elmoutawakkil*, Oussama Bentaher

Faculty of Medicine, Pharmacy and Dentistry, Sidi
Mohammed Ben Abdellah University, Fez, Morocco

Complete digital workflow using CAD-CAM smart guides for an immediate complete denture: A case report

The primary objective of implant placement is to ensure optimal positioning for subsequent prosthetic restoration while also protecting delicate anatomical structures. In this context, navigated implants deliver significantly improved results compared to traditional implants that are inserted through manual methods. The integration of computer-assisted navigation with three-dimensional (3D) imaging via cone beam computed tomography (CBCT) constitutes an ideal strategy to augment the predictability of successful implant placements. Essentially, one can distinguish between static navigation, which employs templates, and direct dynamic navigation that depends on optical transmission systems. Both techniques demonstrate equally favorable results with regard to the precision of implant placement. At present, the standard involves the digital fabrication of the template. Direct navigation becomes the more attractive option if the acquisition expenses can be reduced by simplifying the system. The third dimension, representing thickness, is now accessible to practitioners, resulting in a reduced chance of surgical errors. Additionally, the incorporation of implant planning software has rendered these procedures more attainable. After confirming the placement of the implant, abutment selection can proceed, allowing for customization of the prosthesis. Utilizing this data, multiple guides may be developed for implant positioning, bone harvesting, and immediate prosthesis placement. The latter can also be designed and 3D printed prior to the surgical intervention.

Digital breakthroughs are increasingly included into modern dentistry. Software-driven approaches, automation, and technology integration are replacing traditional processes. Establishing safe therapeutic procedures that produce exceptional and reliable clinical results is the goal. Using a clinical case, this presentation demonstrates the critical stages of implant therapy, such as digital impressions, treatment planning, 3D implant placement and 3D printed

surgical guides, beginning with bone resection and guided implant to an immediate denture placement.

Biography

In June 2015, Nidal graduated with a Doctorate in Dental Medicine from the Faculty of Dentistry in Casablanca, receiving highest honors and congratulations from the jury, and graduated with a Certificate in Implantology and Maxillofacial Surgery from Paul Sabatier University in Toulouse, France. A year after, graduated with a University Diploma in Implantology and Maxillofacial Surgery from Paul Sabatier University in Toulouse (valedictorian). In June 2018, Elmoutawakkil graduated in C.E.S.U. (Certificate of Advanced Studies in Dental Occlusodontics) from the University of Marseille, France, and accomplished a CAD-CAM Dental Certificate from Smile Academy in Casablanca. From 2013 to 2017 Elmoutawakkil worked full-time in a private practice as a dentist in a multidisciplinary dental center. From 2017 to 2021 was a full-time resident in the removable prosthodontics department of the dental consultation and treatment center at Ibn Rochd University Hospital in Casablanca; and obtained the National Diploma in Dental Prosthodontics (DNSO) from the Faculty of Dentistry in Casablanca in June 2021. Finally, in October 2025 she started working as an Assistant Professor in the Department of Removable Prosthodontics and Maxillofacial Surgery at the Faculty of Medicine, Pharmacy, and Dentistry in Fez (Sidi Mohammed Ben Abdellah University).



Nikou Gharooni-Dowrani*, Resham Pindoria, Khemanand Maharaj, Ali Payam Sattarzadeh

Bedfordshire Hospitals NHS Foundation Trust,
United Kingdom

Hilotherapy use in orthognathic surgery

Introduction/Aims: Hilotherm masks are facial devices used to apply temperature regulated water to desired areas overlying the skin following surgery or trauma. The benefits of hilotherapy following orthognathic surgery have been explored recently, demonstrating reduction in patient pain and swelling. However, hilotherapy is not currently accessible to all patients.

Aims:

- To investigate overall patient experience using hilotherapy following orthognathic surgery.
- To compare the patient perception of pain, swelling and time taken to return to normal activity in hilotherm patients versus conventional ice pack patients.

Materials and Methods:

A retrospective review of patients between September 2024 and September 2025 identified 30 patients who underwent bimaxillary osteotomies; 15 received hilotherm masks and 15 patients received ice packs in their recovery. Teleconsultations were used to survey patients with questions using a 5-point Likert scale response to study pain, swelling and time taken to return to normal activities.

Results/Statistics:

- 98% hilotherapy patients reported a significant reduction in pain and swelling compared to lower percentages in those with ice packs only.
- 84% of patients who used the hilotherm found it easy to use.
- 96% would recommend it to other patients and the majority would pay for a rental hilotherm.
- 100% patients who used hilotherm masks were discharged one day post-operatively.

Conclusions/Clinical Relevance: Hilotherapy aids orthognathic recovery by minimising pain, post-operative swelling and recovery time. Patients prefer hiloterm masks over traditional ice packs, experiencing enhanced recovery and therefore enabling early discharge. We aim to implement hiloterm leaflets in pre-operative consultations for all orthognathic patients to improve accessibility. Consequently, this will facilitate discussions regarding hiloterapy as an option to improve recovery, comfort and overall patient experience.

Biography

Dr. Nikou Gharooni BDS (Hons) MFDS RCS (Edin) graduated from King's College London in 2021 and is currently a Speciality Registrar in Orthodontics based at Guy's Hospital and Luton and Dunstable University Hospital. She has completed training in Oral and Maxillofacial Surgery as well as Special Care Dentistry in DCT hospital posts prior to embarking on her speciality training.



Mr Onur Akay^{1*},
Dr. Koray Sadettinoğlu^{2*}

¹Chief Executive Officer at Dentakay, Turkey

²Dentakay, Turkey



The rise of dental health tourism

Health tourism is one of the fastest-growing sectors in global healthcare, with growing evidence of patients crossing borders for healthcare, sometimes combining trips for treatment with holidays. This phenomenon is driven by increasing confidence in the quality of health tourism providers. The global medical tourism market was valued at US\$30.5 billion in 2024 and is expected to grow from US\$35 billion in 2025 to US\$142 billion by 2034, at a compound annual growth rate of 16.8%, according to Global Market Insights Inc.

This presentation examines the rise of dental health tourism, with a focus on the award-winning dental group Dentakay. Founded with its first centre in Istanbul, Dentakay has grown into an international dental group with eight dental hospitals in Turkey, alongside centres in the UK, Mexico and Saudi Arabia. The presentation will outline the key factors behind this growth, including clinical standards, cosmetic dentistry expertise and a patient-focused care model that continues to attract international patients.

Biography

Mr. Onur Akay is the Chief Executive Officer of Dentakay and has over 20 years of experience in corporate management. He previously worked with major companies including TAV and Huawei Turkey. With a background in entrepreneurship and financial management, Onur has built a strong professional network over the past two decades. As CEO, he has played a key role in Dentakay's growth over the last two years, focusing on strategic development, industry trends and customer satisfaction to strengthen the company's position in dental care.

Dr. Koray Sadettinoğlu is a dentist with over 25 years of experience in dentistry. He has been working in the dental tourism sector for more than 10 years and has treated a vast number of patients from around the world. With his extensive experience in dental tourism, Dr. Sadettinoğlu brings a rare and insightful perspective to the field. He currently serves as a Senior Dentist at Dentakay and works directly with Dr. Gülay Akay, the founder of Dentakay.



Pui Sze Kylie Li*, Eithar Elmahi

University Hospitals Plymouth NHS Trust, United Kingdom

Laxative prescribing for post-operative head and neck cancer patients at Derriford Hospital

Introduction: Patients are at increased risk of constipation following major head and neck surgery. They are often prescribed strong analgesics post-operatively and opioid-induced constipation is a common adverse effect. Constipation can also be affected by other contributing factors including anaesthetic medications, limited physical activity and changes in fluid and diet intake. It is recommended that a prophylactic laxative is co-prescribed when commencing strong opioid therapy during admission. This is supported by guidelines from the Association of Anaesthetists and British Pain Society. Recommendations for the choice of laxatives are published by the National Institute for Health and Care Excellence (NICE) and the local hospital trust.

Aim: The aims were to increase the co-prescription rate of laxatives for post-operative head and neck cancer patients on opioids, to reduce the incidence of opioid-induced constipation and to improve post-operative recovery. This would be achieved through the evaluation of current prescribing practices, sharing of recommendations with the surgical team and introduction of reminders in the prescribing workflow.

Method: A two-cycle audit was undertaken on patients who have undergone major head and neck surgery under the Oral and Maxillofacial Surgery team at Derriford Hospital. The inclusion criteria were surgical treatment of head and neck cancer with free flap or regional flap reconstruction. The standard was 100% compliance in all patients reviewed. A total of 20 patient records were reviewed. The results were evaluated based on compliance with the following criteria: whether laxative(s) was prescribed during post-operative hospital stay; whether the laxative(s) was prescribed immediately post-op; and the appropriateness of laxative chosen.

Results: Excellent compliance has been maintained in regards to laxatives being prescribed during the patients' hospital stay. From cycle 1 to cycle 2 of the audit, the mean timing of laxative prescription was reduced by 26.7% (0.73 days post-operation) and the maximum timing was reduced by 62.5% (5 days post-operation). The choice of laxative regimen was also more appropriately aligned with local guidelines (compliance increased from 18% to 100%).

Conclusion: Changes have been implemented within the Oral and Maxillofacial Surgery department. This included visual reminders and staff education, which have led to a significant improvement in the appropriate prescription of laxatives for post-operative head and neck patients. This is important as constipation could lead to increased risks of post-operative complications and prolonged hospital stay. Chronic constipation is also associated with a negative impact on quality of life. A departmental re-audit is planned in 12 months.

Biography

Pui Sze Kylie Li qualified from Cardiff University in 2022. Since then, she has worked in general dental practices in North East England and South Wales, and has undertaken two years of Dental Core Training in Oral and Maxillofacial Surgery within the South West of England. During this time, she has also completed the MFDS qualification with the Royal College of Surgeons of Edinburgh.



Ramesh Nagarajappa

Department of Public Health Dentistry, The Oxford Dental College, Bangalore, India

From diagnosis to decision: Evidence-based choices in general dental practice

Clinical decision-making in general dental practice often lies at the intersection of scientific evidence, clinical experience, and patient expectations. Despite the growing availability of research and guidelines, translating evidence into everyday clinical decisions remains a challenge for many practitioners. This presentation aims to bridge the gap between diagnosis and treatment planning by emphasizing evidence-based decision-making in routine dental practice.

The session will explore common diagnostic dilemmas faced by general dentists, including caries management, restorative choices, periodontal decision-making, and treatment planning under constraints of time, cost, and patient preferences. Emphasis will be placed on applying the principles of evidence-based dentistry—best available evidence, clinical expertise, and patient values—to arrive at rational and predictable clinical decisions. Practical examples, clinical scenarios, and simplified decision pathways will be discussed to demonstrate how evidence can guide everyday choices without overcomplicating practice. The presentation concludes by reinforcing that evidence-based decisions enhance treatment outcomes, reduce failures, and improve patient trust in general dental practice.

Keywords: Evidence-Based Dentistry, Clinical Decision-Making, Diagnosis, General Practice, Treatment Planning.

Biography

Prof (Dr). Ramesh Nagarajappa graduated from the prestigious Bapuji Dental College and Hospital, Davangere, India in 1999, and is presently working as a Vice Principal, Professor and Head, in the Department of Public Health Dentistry at the Oxford Dental College, Bangalore, India. Nagarajappa has post-graduation teaching experience of over 26 years and has guided both PhD and MDS students, has authored 140 publications in various international and national reputed journals, and has been a regular reviewer too in many journals. Nagarajappa also has experience in delivering scientific presentations and chairing scientific sessions at various conferences.



Reem Alhakim

Royal Free London NHS Foundation Trust, United Kingdom

Coronectomy for mandibular third molars: A retrospective review of clinical outcomes

Objectives: Coronectomy is a recognised surgical technique used in the management of mandibular third molars that are closely associated with the inferior alveolar nerve (IAN). By removing the crown while intentionally retaining the roots, the procedure aims to reduce the risk of nerve injury compared with complete extraction. This study aimed to evaluate the short-term clinical outcomes and complication rates associated with coronectomy procedures performed within a tertiary oral and maxillofacial surgery service.

Materials and Methods: A retrospective review was conducted of patients who underwent coronectomy of mandibular third molars. Twenty consecutive cases involving either the lower right or lower left third molar were identified. Patient records were analysed to assess postoperative outcomes, including complications, emergency department attendance, and re-referral following surgery.

Results: A total of 20 coronectomy procedures were included in the analysis. Nineteen patients (95%) experienced an uncomplicated postoperative course. One patient (5%) presented to the emergency department postoperatively with concerns following surgery. One additional patient was re-referred for postoperative assessment; however, no complications were identified and the patient was discharged without intervention. No cases of inferior alveolar nerve injury were reported.

Conclusion: Within this cohort, coronectomy demonstrated a high success rate and a low incidence of postoperative complications. Notably, no cases of inferior alveolar nerve injury were observed, supporting coronectomy as a safe and effective alternative to complete extraction when mandibular third molars are closely associated with the inferior alveolar nerve.

Further studies with larger patient cohorts and longer follow-up periods are recommended to better evaluate long-term outcomes.

Keywords: Coronectomy, Mandibular Third Molar, Inferior Alveolar Nerve, Oral Surgery, Complications.

Biography

Dr. Reem Alhakim graduated with a Bachelor of Dental Surgery (BDS) from King's College London in 2021. Following graduation, she completed Dental Core Training Year 1 at Guy's Hospital, where she gained experience across Restorative Dentistry, Dental and Maxillofacial Radiology, and Oral Surgery, and subsequently undertook Dental Core Training Year 2 in Oral and Maxillofacial Surgery (OMFS) at the Royal Free London NHS Foundation Trust. Through this training, Dr. Alhakim has developed a broad clinical skill set in both hospital-based dentistry and maxillofacial surgery, with experience managing a wide range of dental and surgical cases.



Richa Gupta

Independent Medical Writer, Illinois, United States

Dynamic navigation systems for predictable implant outcomes: Evidence & future trends

Precision in dental implant placement is essential for achieving optimal functional and esthetic outcomes. Dynamic Navigation Systems (DNS) represent a significant advancement in digital implantology by providing real-time, computer-assisted guidance during surgery. Unlike static surgical guides, DNS offers intraoperative flexibility while maintaining high accuracy, allowing clinicians to adapt to anatomical variations and unexpected clinical situations.

Scientific evidence indicates that dynamic navigation systems significantly enhance implant placement accuracy, demonstrating reduced angular, coronal, and apical deviations compared to freehand techniques. Studies also report improved safety by minimizing the risk of injury to vital anatomical structures, as well as enhanced prosthetically driven implant positioning. These benefits are particularly relevant in complex clinical scenarios, including limited bone availability, immediate implant placement, and full-arch rehabilitations. Additionally, the use of DNS supports minimally invasive surgical approaches, potentially reducing surgical trauma, operative time, and postoperative morbidity.

Despite these advantages, adoption of dynamic navigation systems is influenced by factors such as cost, learning curve, and integration into existing clinical workflows. Ongoing technological developments—including artificial intelligence, augmented reality, and improved tracking and imaging technologies—are expected to further enhance accuracy, efficiency, and accessibility. Emerging applications also suggest a growing role for DNS in education, advanced regenerative procedures, and robotic-assisted implant surgery.

Biography

Dr. Richa Gupta is a dental graduate with advanced training in Hospital Management from the National Institute of Health and Family Welfare, New Delhi, India. She holds certification in scientific writing from Stanford University, USA, and has received professional editorial training. With over a decade of experience, she is a recognized medical writer with numerous publications in national and international journals, having authored more than 15 scientific articles and contributed to over 50 blogs, book chapters, and feature articles focusing on evidence-based dentistry and emerging dental technologies.



Rosheen Fatima*, Kunal Patel, Rosie Whatling

Great Ormond Street Hospital, United Kingdom

Preventing repeat general anaesthetic procedures by piggybacking at Great Ormond Street Hospital

Background: General anaesthesia (GA) is often required for paediatric dental treatments, but repeated exposure may raise safety concerns, including potential neurocognitive risks. Piggybacking, where dental team joins a medical GA list to combine procedures, offers a solution to reduce the number of GA procedures.

Aim: This project aimed to evaluate the impact of piggybacking on reducing repeat GA exposure, improving patient care, and enhancing service efficiency at Great Ormond Street Hospital (GOSH).

Objectives: The study assessed the impact on GA episodes, service efficiency, logistical challenges, and strategies for evidence-based paediatric dental care.

Method: A retrospective analysis of piggybacked procedures from January to December 2024 was conducted using hospital emails, electronic patient records, and theatre scheduling logs. Data included planned and completed cases, procedure types, involved specialties, and cancellations.

Results: Of 49 planned cases, 32 were successfully completed. The dental team joined as the secondary team in 85% of cases, preventing repeat GA episodes and avoiding 32 additional dental procedures. Patients aged 2-17 years (ASA 1-4) were treated, with ENT participating most (13 cases). Seventeen cases were cancelled due to parental withdrawal, medical issues, or other factors.

Discussion/Recommendations/Action Plan: Recommendations include improved communication with parents, better interdepartmental coordination, and increased dental staffing to meet demand.

Conclusion: Piggybacking prevented repeat GA exposure, equivalent to eight separate dental GA lists. While ENT and SNAPS were most compatible, scheduling and staffing challenges require improved coordination between teams to optimise this approach.

Biography

Dr. Rosheen Fatima graduated with a Bachelor of Dental Surgery (BDS) from University of Central Lancashire in 2022. Since qualifying, she has gained a broad range of clinical experience across multiple settings, including NHS general dental practice, community dental services, and hospital-based care. Through these roles, she has developed a strong foundation in managing diverse patient needs, with particular exposure to complex and multidisciplinary cases. In addition to clinical work, she has contributed to the academic community through a publication in Dental Update and has presented work at both national and international conferences.



Sachin Shashikant Metkari

Assistant Professor, Conservative Dentistry and Endodontics
Dept., Nair Hospital Dental College, Mumbai, India

Dental aesthetics

Aim: Aim of this presentation is to discuss principals of dental aesthetics from traditional to modern approach.

Introduction: 'Smile is a universal language, shared by people all over the world'. Your smile says a lot more than you speak. Smile is most important for every individual in this robotic age of life. To create an aesthetic smile in dentistry is organised and systematic approach that is required to evaluate, diagnose and resolve the problems associated with it. Modern smile design is a multidisciplinary science that integrates facial aesthetics, dental composition, and soft tissue harmony using advanced digital tools. Recent dental aesthetics transformed from manual, visual based technique to highly precise digital workflow. Today's era of Artificial Intelligence (AI), advanced biomaterials, minimal invasive approach, digital smile design, 4D concept opens us wider view of advance tools for achievement of best smile.

Diagnosis: Component considered for diagnosis of smile design not only includes dentition but it has wide inclusion like facial symmetry and profile, gingival health, contour, zenith points, smile line, etc.

Treatment plan: Correction of gingiva and tooth components are two major factors considered for treatment plan. Gingival components include from scaling, polishing to periodontal surgery, use of LASER for angle and zenith correction. Tooth components includes tooth angulation, inclination, morphology, colour, texture, embrasures, proportion, etc. Treatment plan differ as per direct or indirect laminates, veneers, materials used like composite, porcelain, lithium disilicate, zirconia.

Clinical significance: Healthy and aesthetic smile is the utmost important in this age of competition for every individual. Smile correction require thorough knowledge and skill to replicate natural smile. With availability of tooth-coloured materials, nowadays, achieving acceptable natural smile is possible. This presentation includes close insight for smile evaluation, diagnosis and correction with traditional as well as modern approach.

Biography

Dr. Sachin Shashikant Metkari studied bachelor of Dentistry at Nair Hospital Dental College, Mumbai from Maharashtra University of Health Sciences Nashik, Maharashtra, India. He had done his post-graduation from Government Dental College, and a Ph.D. from Pacific Dental College, Rajasthan, India in 2022, and is now working at Nair Hospital Dental College, Mumbai, India as Assistant Professor. He has published 16 research papers and has presented for the 8th, 9th, 10th and 11th international conference for dentistry and oral health.



**S. Mekhaimar*, K.B. Patel,
C. Morgan**

Royal London Dental Hospital, Barts Health NHS Trust,
United Kingdom

Oral and prosthodontic management of a patient treated with advanced orbital and sinonasal mucormycosis

Introduction: Mucormycosis is a rare, aggressive opportunistic fungal infection predominantly affecting immunocompromised individuals, with a reported global incidence of 0.005–1.7 per million and high associated morbidity. Orbital and paranasal sinus involvement frequently necessitates radical surgical resection, resulting in complex maxillofacial defects with significant functional and aesthetic consequences, including impaired speech, mastication, swallowing, facial symmetry, and considerable psychological impact. Obturator prostheses play a key role in managing such defects, sealing oro-nasal communications and restoring speech, swallowing function, and facial support.

Case Report: We present the case of an 18-year-old male who developed orbital and sinonasal mucormycosis, necessitating left orbital exenteration and extended maxillectomy, resulting in a large maxillary defect (Brown's IVb, Aramany Class I). Rehabilitation was complicated by poor general health (type 2 diabetes, electrolyte imbalance, dysphagia), a right-sided neurological deficit causing reduced dexterity, and nasal regurgitation. A sequential, staged prosthodontic approach was undertaken: an initial surgical obturator with a clear base plate and silicone putty, followed by an interim acrylic obturator, and finally a definitive cobalt-chromium obturator incorporating a digitally designed, laser-sintered metal framework with features to enhance retention. Regular modification and relining were required to accommodate rapid changes in the defect during the early post-surgical healing phase, using a hybrid digital-analogue workflow combining functional impressions, intraoral scanning, and framework design, together with chairside adjustment to optimise fit, occlusion, and retention. Oral hygiene instruction was tailored to the patient's reduced dexterity, incorporating carer involvement and video aids, with ongoing multidisciplinary team (MDT) review guiding rehabilitation.

Results: The definitive obturator was successfully delivered, achieving effective sealing of the defect with improved speech, mastication, and aesthetic outcomes. Retention was adequate, though remained slightly limited by anatomical constraints (short crowns, inferior turbinate's). The patient reported high satisfaction with both functional and aesthetic results.

Conclusion: This case illustrates the value of a staged, adaptive prosthodontic rehabilitation approach for complex maxillary defects following mucormycosis, underpinned by close multidisciplinary collaboration to manage evolving anatomy and systemic factors. Iterative obturator design supported meaningful functional and aesthetic gains, although retention remained constrained by anatomy. The case highlights the limitations of purely digital workflows in achieving accurate occlusion and fit, and identifies opportunities for further optimisation through surgical modification, including resection of the inferior turbinates and consideration of zygomatic implants.

Biography

Sarah Mekhaimar is a Dental Core Trainee working in Restorative Dentistry at the Royal London Dental Hospital. She is passionate about the holistic care of patients and has been involved in assessing and managing dental restorative needs in patients affected by head and neck cancers, her working alongside registrars and shadowing or assisting on more complex cases to develop her skills in prosthodontic rehabilitation of maxillofacial defects.



Shaun Dolby^{1*}, Rami Khatib², Liz Gruber³, Kully Shoker⁴

¹NHS England Midlands Workforce Training and Education, United Kingdom

²Local Dental Network Chair, Derbyshire, United Kingdom

³Training Programme Director for JDFCT, East of England, United Kingdom

⁴Training Programme Director, Dental Joint Training Scheme (DJT), United Kingdom

Outcomes of a feedback-informed oral surgery placement in longitudinal dental training

Introduction: The Midlands Joint Dental Foundation and Core Training (JDFCT) programme is an longitudinal model of early postgraduate education that integrates Dental Foundation Training and Dental Core Training Year 1 across primary and secondary care. Designed to improve clinical confidence, service continuity and workforce retention in particularly in underserved areas. The programme offers an alternative to traditional rotational training structures. Evaluation and feedback of the first pilot cohort identified variability in surgical exposure and limited trainee confidence in oral surgery procedures, attributed to the pilot cohort's supernumerary status and differences between secondary care services. In response, a targeted intervention was collaboratively developed with the Derbyshire Local Dental Network: a supervised enhanced surgical skills placement embedded within Intermediate Oral and Maxillofacial Surgery (iMOS) services.

Methods: The initiative aimed to enhance trainee confidence and competence in surgical exodontia, strengthen management of medically and surgically complex patients and increase readiness for independent practice. Six longitudinal trainees completed structured preparation, including both online and in person theory and practical sessions, followed by three supervised full-day iMOS clinical placements. Evaluation was via mixed-methodology qualitative and quantitative evaluation using pre- and post-placement questionnaires.

Results: Trainees reported increased confidence and self-rated clinical skills in flap raising, bone removal, tooth sectioning, suturing, and complication management, with post-placement scores showing greater consistency across the cohort. Supervisors corroborated these findings, highlighting professional behaviour, engagement, and meaningful skill development, while also identifying the value of extended or repeated exposure.

Discussion: Despite logistical challenges related to compressed timescales, geography and patient availability. The pilot illustrates how collaborative commissioner-supported educational innovation can rapidly address identified competency gaps and provide increased support, ultimately supporting workforce development, enhancing early career confidence, and contributing to sustainable service and increased patient access to primary care.

Biography

Shaun Dolby holds a BSc in Biochemistry and Genetics from the University of Nottingham (2011) and completed a graduate-entry dentistry degree at King's College London in 2015. Following Dental Foundation Training (DFT) in the East Midlands, he undertook Dental Core Training (DCT) years 1 and 2 in Oral Surgery and Oral & Maxillofacial Surgery (OMFS) within the Yorkshire Deanery, during which he also achieved his MJDF qualification. From 2018 to 2024, Shaun worked as a Specialty Doctor in the OMFS department at James Cook University Hospital, and is currently undertaking an Advancement Fellowship within NHS Midlands, focusing on workforce support, professional development, and the identification, management and prevention of professional burnout, following completion of a Leadership and Management Fellowship in Oral Surgery. Clinically, he works at Birmingham Dental Hospital as a Specialty Doctor in Oral Surgery. His professional interests include oral surgery, the management of medically compromised patients, and the provision of urgent dental care. Ultimately, he aspires to become the Clinical Director of an urgent dental care centre while providing direct patient care alongside workforce development.



Shreeya Khetani

NHS England, United Kingdom

A literature review assessing awareness of environmental sustainability in dentistry

Background and Aims: Climate change is currently the most pressing issue facing the planet; it is estimated to cause two hundred and fifty thousand deaths per year from 2030 to 2050. The healthcare industry plays a large role in greenhouse gas emissions, including the dental sector. This paper will review how aware dental professionals, dental students and the public are of sustainability in dentistry. It will also highlight some key methods of improving this.

Methods: Three international databases were searched to identify relevant papers using the Boolean search string 'carbon emission' OR 'environment*' OR 'sustainab*' OR 'climate change', which were all combined with 'dentist*'. The results were manually sorted to include papers which focused on awareness of sustainability in dentistry.

Results: 11 papers were included in this review. They all gathered information on awareness of environmental sustainability in dentistry (ESD) and attitudes to reducing the impact of dentistry on the environment. There was generally little awareness of ESD but high levels of positive attitudes surrounding willingness to change.

Conclusion: The papers show that ESD awareness is low mostly due to barriers such as lack of education surrounding the topic. The strong positive attitudes towards importance of ESD implies that the removal of these barriers would lead to changes being made to reduce the carbon footprint of the dental industry. Some of the main methods to facilitate change are through reducing carbon emissions from travel and incorporating ESD into dental schools' curriculum.

Biography

Shreeya Khetani is a dentist who qualified from Cardiff University in 2024. She completed a foundation year in Winchester and is currently in her first Dental Core Training year. This is based in Essex, focusing on oral and maxillofacial surgery. She has a keen interest in sustainability and how dentistry can change as a profession to become more sustainable.



Shveta Setia Thareja

Department of Prosthodontics, Crown & Bridge and Implantology, Faculty of Dental Sciences, SGT University, Gurgaon, India

Systematic approach to esthetic excellence

Esthetic excellence in modern dentistry is not achieved by isolated techniques or materials, but through a systematic, biologically respectful, and patient-centered approach. Predictable esthetic outcomes rely on structured diagnosis, comprehensive treatment planning, and precise execution, supported by effective collaboration between the clinician, interdisciplinary team, and dental laboratory. This integrated approach forms the foundation for consistent success across all esthetic dental procedures.

A philosophy of minimal intervention, guided by sound biological principles, enhances adhesion, preserves tooth structure, and promotes long-term clinical stability. Advances in restorative materials, adhesive technologies, digital workflows, and clinical protocols have expanded the possibilities in esthetic dentistry, enabling clinicians to tailor solutions that harmonize function, esthetics, and longevity.

This presentation outlines a systematic approach to esthetic excellence, encompassing diagnosis, smile analysis, material selection, preparation design, soft-tissue management, and bonding protocols. Emphasis will be placed on clinically driven decision-making, contemporary classifications, and evidence-based strategies to achieve predictable, natural, and durable esthetic outcomes across a wide spectrum of restorative and cosmetic treatments.

Biography

Dr. Shveta is a distinguished Prosthodontist, academician, and thought leader in contemporary dentistry, widely recognized for expertise in fixed prosthodontics, digital workflows, and aesthetic rehabilitation. Thareja completed a Bachelor of Dental Surgery from Kurukshetra University, Haryana, India, in 2013, followed by a Master's degree in Prosthodontics from

SGT University in 2017, developing a strong foundation in evidence-based clinical practice and academic excellence. As an eminent speaker and mentor, Dr. Shveta has been actively presenting clinical insights, research-driven approaches, and future-forward perspectives on prosthodontics at numerous national and international academic forums over the past five years. Her lectures are known for seamlessly integrating scientific rigor with practical clinical application, making her a sought-after speaker for conferences, symposiums, and professional development programs. She currently serves as a mentor for fixed prosthodontics at VATECH India, where she plays a pivotal role in guiding clinicians on advanced restorative solutions and emerging dental technologies. Dr. Shveta is also the founder and visionary leader of Artistree Dentals and Cosmetic Clinic, a center of excellence dedicated to precision dentistry, aesthetics, and patient-centered care. Under her leadership, the clinic reflects her philosophy of combining innovation, ethics, and artistry in dentistry while fostering a culture of continuous learning and clinical excellence. Beyond academia and clinical practice, Dr. Shveta is a prominent media voice and oral health advocate, contributing expert opinions and educational content on leading national platforms such as Times Now and Hindustan Times. Through these engagements, she actively bridges the gap between scientific dentistry and public awareness, reinforcing the importance of preventive care, informed treatment choices, and overall oral health literacy. An esteemed member of the Indian Dental Association and the Indian Prosthodontic Society, Dr. Shveta demonstrates strong leadership through her involvement in professional organizations, educational initiatives, and interdisciplinary collaborations. Her work reflects a deep commitment to advancing prosthodontic education, mentoring young clinicians, and shaping the future of dentistry through innovation, research, and responsible leadership. With a career defined by academic integrity, clinical mastery, media engagement, and visionary leadership, Dr. Shveta continues to inspire peers and students alike, positioning herself as a powerful voice in modern prosthodontics and a catalyst for positive change in dental healthcare.



**Sinead Sutcliffe*,
Chris Keating, Mojtaba Dorri**

Bristol Dental Hospital, University Hospitals Bristol and
Weston, Bristol, United Kingdom

Transition to digital workflows in a UK dental hospital: Strategy, implementation and early impact

Introduction: Digital technologies have transformed restorative dentistry by improving efficiency, accuracy, and patient experience. However, implementation within UK NHS hospital restorative services remains limited by financial, infrastructural, workforce, and information governance challenges. This study describes the implementation of a digital restorative workflow at Bristol Dental Hospital and evaluates its early impact on laboratory efficiency.

Methods: A phased digital transformation programme was undertaken across the restorative dentistry and dental laboratory departments at Bristol Dental Hospital. Technologies introduced included intraoral scanners, CAD software (Exocad and 3Shape), and additive and subtractive manufacturing systems. Implementation incorporated workflow mapping, structured training for 19 laboratory technicians supported by in-house and supplier-led education, equipment evaluation and validation, IT infrastructure upgrades, and development of standard operating procedures. A structured trial of intraoral scanning systems and formal specification of laboratory equipment informed procurement decisions. Information governance pathways were established to ensure compliance with NHS Digital security standards, Trust policies, and UK GDPR requirements. An early service evaluation examined implementation challenges and facilitators, while laboratory performance was assessed by comparing active technician time between conventional and digital workflows for representative procedures.

Results: Digital workflow implementation was successfully integrated using a phased analogue-to-digital transition model that maintained hybrid clinical and laboratory workflows throughout implementation. Early adoption demonstrated that investment in workforce development, infrastructure, procurement planning, and cross-departmental collaboration

were critical enablers of successful implementation. Key challenges included capital investment, system interoperability, dedicated workspace requirements, IT infrastructure upgrades, staff adaptation, and ongoing technical support. Standardised digital workflows improved case traceability, secure management of digital records, and reduced reliance on physical impressions and model storage. Early service evaluation demonstrated substantial laboratory efficiency gains, with active technician time for a six-unit diagnostic wax-up decreasing from 3 hours to 45 minutes (75% reduction) and single crown fabrication decreasing from 6 hours to 94 minutes (74% reduction). Although longer-term outcomes remain under evaluation, digital implementation is anticipated to reduce material consumption, remake rates, and physical storage requirements while improving workflow consistency and supporting future service sustainability.

Conclusions: A structured implementation strategy enabled successful adoption of digital restorative workflows within an NHS hospital setting despite significant organisational, financial, and technical challenges. Investment in workforce development, infrastructure, governance, and strategic planning was fundamental to successful implementation. Early findings demonstrate substantial improvements in laboratory efficiency and support wider adoption of digital technologies within secondary care restorative services to enhance productivity, service delivery, and long-term sustainability.

Keywords: Digital Dentistry, Restorative Dentistry, Prosthodontics, CAD/CAM, Intraoral Scanner, 3D Printing, NHS Dentistry.

Biography

Sinead Sutcliffe is a Dental Core Trainee in Restorative Dentistry at Bristol Dental Hospital with academic interests in digital dentistry, restorative workflows, and service innovation within secondary care. Sutcliffe graduated from the University of Bristol before working in general dental practice in Cheddar, Somerset, where she gained broad clinical experience. Her current role combines specialist clinical training with research and service evaluation, focusing on implementing digital technologies to improve efficiency, quality, and sustainability within NHS restorative services. Sutcliffe will commence Dental Core Training in Paediatric and Special Care Dentistry in Newcastle as DCT2, further developing clinical and academic interests.



Steven J. Traub

American Institute of Oral Biology (AIOB), USA

Contemporary temporomandibular joint (TMJ) surgery

This 40-minute presentation includes diagnosis and treatment, both surgical and nonsurgical, of temporomandibular joint (TMJ) symptoms and pathology ranging from medical therapy on one end to total TMJ reconstruction on the opposite end of the spectrum, as indicated.

Biography

Dr. Traub graduated from Creighton University School of Dentistry in 1978 following which he completed a 3-year Oral & Maxillofacial Surgery residency at world famous Cook County Hospital in Chicago, Illinois USA in 1981. Traub has been in private solo practice for over 45 years, and is a long-time fellow and board member of the American Institute of Oral Biology and a life fellow of numerous local, state, national and international professional societies. Traub has 8 grown children and enjoys classic rock music and attends live operas and numerous film festivals all around the world every year.



Steven J. Traub

American Institute of Oral Biology (AIOB), USA

Titanium – The ultimate socket preservation

This 40-minute presentation involves the principles and techniques for immediate post-extraction molar implant reconstruction without bone grafting or socket preservation including an 11-year study of 650 consecutive cases performed in a private practice setting.

Biography

Dr. Traub graduated from Creighton University School of Dentistry in 1978 following which he completed a 3-year Oral & Maxillofacial Surgery residency at world famous Cook County Hospital in Chicago, Illinois USA in 1981. Traub has been in private solo practice for over 45 years, and is a long-time fellow and board member of the American Institute of Oral Biology and a life fellow of numerous local, state, national and international professional societies. Traub has 8 grown children and enjoys classic rock music and attends live operas and numerous film festivals all around the world every year.



Surbhi Priyadarshi

Assistant Professor, Department of Public Health Dentistry,
Faculty of Dental Sciences, SGT University, Gurugram,
Haryana, India

Impact of AI (artificial intelligence) tutors on human learning behavior: A cross-disciplinary analysis

Background: Learning experiences, nowadays, are being individualized and flexible by incorporating Artificial Intelligence (AI) tutors into classroom. Despite of its usage and implementation in various fields, a comprehensive multidisciplinary research is required to understand the impact of AI-based app on the human learning behaviour including motivation, cognition and emotion. The aim of this research is to assess the effect of AI-based tutoring systems on human learning behaviour focusing on individuals' psychology, cognitive behaviour and motivation.

Methods: Data were gathered using a mixed-method approach from 120 students enrolled in CBSE-Board-affiliated schools. The NASA-TLX and Academic Motivation Scale (AMS Scale) questionnaires were used to gather baseline data. For 12 weeks, they were instructed to use AI-tutor. Data about the student's motivation, engagement, and learning experience with the AI-Tutor was gathered utilizing the Weekly Learner feedback tool. Behavioral analytics, performance indicators, and standardized psychological exams were used to examine changes in engagement, motivation, cognitive load, and retention. SPSS (version 22.0) was used to further analyze the gathered data. Pre- and post-intervention scores were compared using paired t-tests, and the predictive power of AI engagement indicators on learning outcomes was investigated using regression analysis.

Results: Overall, cognitive workload was significantly reduced throughout the study period, with mean NASA-TLX scores falling from 72.0 in Week 1 to 48.0 in Week 12. Intrinsic motivation increased from a mean of 4.2 to 5.8 and the extrinsic motivation increased from a mean of 4.9 to 5.5. Overall, the amotivation score was reduced from 3.1 to 2.2 after intervention. Learning

experience showed significant gains across four categories: perceived understanding (3.2 to 4.3), personalization (3.1 to 4.5), feedback utility (3.4 to 4.6), and suitable pace of learning (3.3 to 4.2). Motivation related measures increased, with curiosity moving from 3.1 to 4.4, task motivation rising from 3.3 to 4.2, accomplishment increasing from 3.0 to 4.3, and AI preference changed from 2.9 to 3.9. Engagement indicators also increased, with focus (3.2 – 4.3), session completion (3.4 – 4.4), active interaction (3.5 – 4.5) and recommendation scores (3.1 – 4.3). The scores for the learning experience domain increased from 3.3 to 4.4, for motivation 3.2 to 4.3, and for engagement 3.3 to 4.4.

Conclusion: AI tutoring systems significantly enhanced learner motivation, engagement, and overall learning experience while reducing cognitive workload. The findings support the effectiveness of AI-enabled personalized learning environments; however, further development should incorporate emotional responsiveness and human-centered design principles to optimize long-term educational outcomes.

Keywords: AI Tutors, Learning Behavior, Educational Technology, Cognitive Science, Personalized Learning.

Biography

Dr. Surbhi Priyadarshi is an Assistant Professor in the Department of Public Health Dentistry, Faculty of Dental Sciences, SGT University, Gurugram, Haryana, India. Her areas of interest include tobacco cessation, research methodology, biostatistics, and community oral health promotion. In addition to academic expertise, Dr. Priyadarshi possesses valuable clinical experience gained through work in private dental clinics and hospitals. Driven by a passion for education, research, and community service, Priyadarshi continues to contribute significantly to advancing evidence-based dental practice and public health initiatives.



Tabchi Yosra

Sidi Mohamed Ben Abdellah University, Fes, Morocco

Orthodontic management of space following compromised molar extraction: When to close and when to maintain the space?

Background: The extraction of a compromised permanent molar may be unavoidable for endodontic or periodontal reasons. Therefore, the resulting space may either be orthodontically closed or maintained and, when necessary, redistributed for prosthetic rehabilitation. Choosing between these strategies can substantially influence occlusal outcomes, treatment complexity, treatment duration, anchorage requirements, and long-term stability.

Objective: This presentation highlights the main clinical and biomechanical factors that guide the decision between orthodontic space closure and space maintenance following extraction of a compromised permanent molar. Clinical cases illustrate how these criteria can be integrated into individualized treatment planning.

Methods: A review of the orthodontic literature was conducted focusing on the management of spaces resulting from permanent molar extraction. Particular attention was given to factors influencing the feasibility and predictability of orthodontic space closure versus space maintenance or redistribution.

Results: Major determinants such as type and severity of the malocclusion, sagittal and vertical skeletal pattern, amount and location of crowding, periodontal considerations, and many other factors should be considered for structured decision-making. The feasibility of anchorage control and the biomechanical consequences of extensive molar protraction must also be considered.

Conclusion: Management of an imposed molar extraction should be considered within the overall orthodontic treatment plan rather than as an isolated space problem. The choice between space closure and space maintenance requires a multifactorial assessment.

Biography

Dr. Tabchi Yosra is an Assistant Professor of Orthodontics and Dentofacial Orthopedics in Fes, Morocco. She holds a Doctor of Dental Surgery degree and a national specialty degree in Orthodontics and Dentofacial Orthopedics, and is actively involved in clinical practice, undergraduate dental education, and research in orthodontics.



**Tabchi Yosra*, Assali Ahlam,
Fatima Zaoui**

Sidi Mohamed Ben Abdellah University, Fes, Morocco

Orthodontic-surgical traction of impacted teeth: From 3D diagnosis to biomechanical management

Background: Tooth impaction is a very common clinical case in daily orthodontic practice, most frequently affecting maxillary canines and central incisors. Tooth impaction has detrimental consequences, such as root resorption of the adjacent teeth, dental midline deviation, anterior crowding, arch perimeter shortening, infection, and pain. Orthodontic placement of these teeth is highly recommended in adult patients. Therefore, successful management requires close collaboration between the orthodontist and the oral surgeon, as well as careful diagnosis and planning.

Objective: This presentation aims to outline a structured approach to the combined orthodontic and surgical traction of impacted incisors and canines.

Content: A review of the orthodontic literature was conducted focusing on clinical examination and the determining role of cone-beam computed tomography (CBCT) in accurately locating the impacted tooth. Attention was given to the biomechanical traction force, direction and point of application. Anchorage management will be examined, from conventional dental anchorage to skeletal anchorage using miniscrews.

Conclusion: A rigorous diagnosis supported by 3D imaging, sound biomechanical planning and appropriate anchorage are essential for the predictable and safe traction of impacted teeth.

Biography

Dr. Tabchi Yosra is an Assistant Professor of Orthodontics and Dentofacial Orthopaedics in Fes, Morocco. She holds a Doctor of Dental Surgery degree and a national specialty degree in Orthodontics and Dentofacial Orthopaedics, and is actively involved in clinical practice, undergraduate dental education, and research in orthodontics.



Tannaz Poursak

Tabriz University of Medical Sciences, Tabriz, Iran

Artificial intelligence (AI) in clinical decision-making in third molar surgery

Artificial Intelligence (AI) is making significant strides in the field of oral and maxillofacial surgery, particularly in the context of third molar surgery. This paper investigates the implementation of AI technologies to enhance clinical decision-making during the planning and execution of third molar extraction procedures. By utilizing machine learning algorithms and predictive analytics, AI can analyze patient data, including radiographic images and medical history, to assess the complexity of third molar cases. The integration of AI not only aids in accurately predicting potential complications and anatomical variations but also improves surgical outcomes by facilitating personalized treatment plans tailored to individual patient profiles. Furthermore, AI systems contribute to optimizing surgical workflows, reducing operation times, and enhancing patient safety. As we explore the emerging role of AI in third molar surgery, we emphasize the necessity of balancing technological advancements with ethical considerations and the vital role of dental practitioners in maintaining oversight in clinical decision-making. The findings suggest that leveraging AI in third molar surgery can lead to more efficient, accurate, and safe surgical interventions, ultimately improving patient care in oral surgery.

Biography

Dr. Tannaz Poursak is a specialist in oral and maxillofacial surgery, currently working as an assistant professor at the School of Dentistry, Tabriz University of Medical Sciences. She believes that educating students and treating patients is not possible without conducting research projects, as science is dynamic. She obtained a doctorate degree in maxillofacial surgery in 2017 after completing 5 years of residency at Tabriz University of Medical Sciences. In addition to teaching at the university and conducting research projects, she also has a private

office where she treats different patients. She is busy working as the only female maxillofacial surgeon in Tabriz city. She works in various fields of oral surgery and maxillofacial surgery, especially third molar surgery, rhinoplasty and orthognathic surgery.



Theodore Wong*, Khaled Khalaf

Aberdeen Dental Hospital, Aberdeen, United Kingdom

From referral to treatment: A retrospective audit on the factors impacting management of impacted maxillary canines in secondary care

The audit evaluated the timing and quality of referral, and duration of orthodontic treatment for patients with impacted maxillary canines, comparing them against national and local standards.

The aims and objectives of the audit were:

- a) to ensure that 90% of patients are referred before the age of 12;¹
- b) to confirm that 90% of referrals meet local guideline criteria²;
- c) to confirm that 90% of patients with impacted maxillary canines have their orthodontic treatment completed in 2.5 years or less.

We reviewed randomly selected patient records spanning 12 years (2013-2025) and extracted data on age, gender, type and location of impaction, referral quality, treatment timelines, missed appointments, and other factors that affect treatment duration. This data was anonymised and analysed in Microsoft Excel. Ethical approval was not necessary as this was a service evaluation audit.

The results of the audit, which are of significant importance, revealed that only 7% of patients were referred before age 12, failing to meet the first standard. For the second standard, only 71% of referrals complied with local guidelines. The mean duration of orthodontic treatment was 2.7 years, slightly above the gold standard of 2.5 years.

These findings underscore the urgent need for improvements in all areas. Recommendations include sending formal emails to local primary care practices to share our findings and upcoming changes, holding a governance meeting to discuss service enhancements, and ensuring patients have adequate notice of their appointments. Inviting feedback from patients, the primary care team, and the Aberdeen Dental Hospital staff will help gather suggestions for improvement.

Moving forward, our commitment to patient care remains unwavering. We plan to conduct a re-audit, not just to meet standards, but to exceed them. Our goal is to improve referral age, referral quality, and treatment duration, ensuring that our patients receive the best possible care.

Biography

Theodore Wong BDS, MFDS RCSEd, is a Dental Core Trainee in Restorative Dentistry at Aberdeen Dental Hospital with six years of experience in general practice and hospital settings. He graduated from the University of Dundee in 2019 and completed vocational training on the Isle of Islay before working as a dental associate. Theodore began Dental Core Training in Inverness within Oral and Maxillofacial Surgery and the Public Dental Service, later progressing to the current post. He serves as Sponsorship Secretary for the BDA Aberdeen Committee and has led multiple quality improvement projects. Outside dentistry, Wong enjoys hiking and travelling.



Thushara Thayaparan^{1*}, Alisha Amin²

¹Specialty Registrar in Special Care Dentistry, Surrey and Sussex Healthcare NHS Trust, United Kingdom

²Specialty Registrar in Orthodontics, Buckinghamshire NHS Trust, United Kingdom

Joint care for patients with learning disabilities requiring sedation and general anaesthesia: A multidisciplinary case series

Background: People with learning disabilities often experience significant barriers to accessing dental care due to complex medical, behavioural, communication, and social needs. Special Care Dentistry plays a pivotal role in reducing oral health inequalities through the provision of personalised care, reasonable adjustments, and access to sedation and general anaesthesia where required. Successful treatment frequently depends on close collaboration between dental, medical, anaesthetic, and support services.

Case Series: This presentation describes a series of patients with learning disabilities managed within a hospital-based Special Care Dentistry service. The cases highlight the challenges encountered when providing dental treatment to individuals with complex needs and demonstrate how a multidisciplinary team (MDT) approach facilitated safe and effective care. Joint working between Special Care Dentistry, anaesthetic teams, medical specialists, community services, carers, and family members supported comprehensive assessment, treatment planning, and delivery of care. The cases illustrate the importance of individualised care pathways, reasonable adjustments, behavioural management strategies, and the appropriate use of sedation and general anaesthesia to meet patient needs.

Conclusion: The management of patients with learning disabilities extends beyond clinical dental treatment and requires coordinated multidisciplinary care. This case series demonstrates how collaborative working can improve access to dental services, overcome barriers to treatment, and optimise patient outcomes. The cases emphasise the value of integrated care pathways and patient-centred approaches in delivering equitable oral healthcare for individuals with complex needs.

Biography

Dr. Thushara Thayaparan graduated with a Bachelor of Dental Surgery (BDS) with Honours from King's College London in 2021. Following graduation, she completed Foundation Training in general practice, developing a strong foundation in comprehensive patient care. She then undertook Dental Core Training Year 1 gaining experience in Oral and Maxillofacial Surgery as well as Special Care Dentistry and in the Community Dental Services. Dr. Thayaparan subsequently worked within Community Dental Services in Surrey, managing paediatric and special care patients, including those with complex medical, behavioural, and additional needs. She is currently a Specialty Trainee (ST1) in Special Care Dentistry, Surrey and London. Through her training, she has developed a broad clinical skill set in both hospital and community-based dentistry, with a particular interest in the management of medically complex and vulnerable patient groups.



Wahid H.O^{1*}, Azhari M²

¹Professor Assistant in Fixed Prosthodontics, Department of Odontological Sciences, Faculty of Medicine, Pharmacy and Dentistry of Fes, Sidi Mohamed Ben Abdellah University of Fes, Morocco

²Professor Aggregate, Maxillofacial Prosthesis, Department of Odontological Sciences, Faculty of Medicine, Pharmacy and Dentistry of Fes, Sidi Mohamed Ben Abdellah University of Fes, Morocco

Occlusal management: The contribution of new technologies

Occlusal evaluation is a routine clinical procedure, ranging from simple occlusal adjustments to the placement of prosthetic restorations. Advances in digital technologies and virtual reality have significantly transformed this process, allowing clinicians to move beyond traditional color-transfer methods and to digitally visualize static and dynamic occlusal contacts.

This work aims to present contemporary digital approaches for assessing static and dynamic occlusion, including optical impression systems, electronic bite registration devices with pressure-sensitive sensors, and mandibular kinematic modeling tools. A literature review and analysis was carried out using PubMed, Google Scholar, ScienceDirect, and Web of Science, focusing on publications from the past 10 years examining their technical characteristics, advantages, and limitations. Current technologies make it possible to integrate multiple 3D datasets—such as dental arches, facial soft tissues, and cranial structures.

Recording mandibular movements allows for the development of a 4D virtual patient. The introduction of jaw-tracking systems has profoundly changed the way clinicians analyze and manage their patients, providing unprecedented precision and customization. Whether diagnosing temporomandibular disorders or designing individualized restorations, these systems improve clinical accuracy while streamlining workflows.

As these technologies continue to progress, they are expected to further transform dental care, making it increasingly precise, efficient, and patient-centered.

Biography

Pr. WAHID HO studied Dentistry at the Faculty of Dental Medicine of Casablanca, Morocco, and graduated as MS in 2019. Then joined the residency program in the Fixed Prosthodontics Department at the Casablanca Dental Consultation and Treatment Center in 2019. She received her speciality degree in 2023 at the same institution. After one year of postdoctoral training, she obtained the position of an Associate Professor at the Faculty of Medicine, Pharmacy, and Dentistry of Fez.



Wahid H.O.^{1*}, Elharram S.²

¹Professor Assistant in Fixed Prosthodontics, Department of Odontological Sciences, Faculty of Medicine, Pharmacy and Dentistry of Fes, Sidi Mohamed Ben Abdellah University of Fes, Morocco

²Professor Aggregate, Conservative and Endodontic Dentistry, Department of Odontological Sciences, Faculty of Medicine, Pharmacy and Dentistry of Fes, Sidi Mohamed Ben Abdellah University of Fes, Morocco

Technology-based assessment in pre-clinical prosthodontics: Technical skills, opportunities and challenges

The acquisition of practical skills is an important component of the dental school curriculum. One of the main objectives of dental simulation courses is to equip students with fundamental technical skills before they see patients. Accurate assessment of student work is therefore essential in preclinical dental training. In many dental schools, students prepare for these practical exams by practicing on ivory teeth. Instructors provide feedback during the practical sessions, followed by summative assessments. Faced with the diversity of assessments and the inconsistency of the feedback, students lose confidence in it. They feel that this inconsistency negatively impacts the learning process.

Technology-based education includes accessible and interactive systems such as computer-assisted learning (CAL), computer-assisted simulation (CAS), and computer-assisted instruction (CAI), which offer students the opportunity to learn and progress at their own pace. Examples from industry include DentSim (DenX Ltd., Jerusalem, Israel), Kavo PrepAssistant (Kavo, Biberach, Germany), E4D Compare (D4D Technologies, Richardson, Texas, USA), and prepCheck (CEREC-Sirona, Bensheim, Germany). The integration of these systems into the dental curriculum is advocated for their ability to facilitate individual learning by providing objective and immediate feedback, as well as for their potential to reduce the workload of instructors and increase efficiency.

The aim of this work is to describe digital assessment systems in fixed prosthodontics and to highlight the challenges involved in implementing these systems in the pre-doctoral curriculum.

Materials and Methods: A literature review was conducted using various search engines: PubMed, Scopus, ScienceDirect, and Google Scholar, examining publications from the last 10 years using the key words: digital evaluation systems; prosthodontics technical skills; pre-clinic and the potential of these technological tools as well as the various challenges of their implementation in undergraduate studies.

Discussion and Conclusion: The systems used in technology-based teaching show potential to complement traditional teaching methods and enrich the learning experience. Their integration has raised challenges, particularly regarding time constraints, human resources, mindset change and financial cost. Furthermore, it is crucial to conduct more longitudinal studies, case studies on implementation, and comparative studies between institutions to refine best practices and guide future curriculum development.

Keywords: Computer-Aided Assessment, Practical Skills, Pre-clinical Dental Education, prepCheck, Self-Assessment, Prosthodontics Technical Skills.

Biography

Pr. WAHID HO studied Dentistry at the Faculty of Dental Medicine of Casablanca, Morocco, and graduated as MS in 2019. Then joined the residency program in the Fixed Prosthodontics Department at the Casablanca Dental Consultation and Treatment Center in 2019. She received her speciality degree in 2023 at the same institution. After one year of postdoctoral training, she obtained the position of an Associate Professor at the Faculty of Medicine, Pharmacy, and Dentistry of Fez.



Zilberman Uri

Head of Pediatric Dental Clinic, Barzilai Medical University
Center, Ashkelon, Israel

Single root molars (SRM) – Prevalence and its significance in human dental evolution

Background and Aim: Anatomic variation in root morphology of permanent molars that have been reported pertain to the presence of additional roots, canals or fused roots and C-shaped canals. The occurrence of a single root in molars (SRM) is rare.

The aim of the study was to determine the prevalence of single root molar in a large sample of Israeli population and to correlate the crown size of SRM to dental evolution of HSS.

Methods: 2425 panoramic radiographs of modern healthy patients were examined on a light table and the prevalence of SRM was determined. The crown width (MD) of the mandibular second molars of normal two rooted molars, single root molars and homologue two-rooted molars were measured using a digital caliber on a light table.

The results of the crown width were compared to anthropological populations (Early HSS and Neanderthals) and archeological population from excavations in Israel from 5000 BC to 13-19 century AC.

Results: The prevalence of single root molars (Figs 1,2) in the modern population was 6.13%. No significant differences were found between males and females. In the upper jaw single root molar was found in both first and second molars while in the lower jaw only second molars showed SRM. In both the Neanderthal and Early HSS groups 1 case with single root molars was found. No single root molars was found in the archeological groups from Israel excavations (5000 years BC till 19th century AC).

The size of the crown was relatively stable during evolution but during the modern period the MD size of the crown was significantly reduced. The crowns of the molars with single root showed significant reduction in comparison to two-rooted molars and the differences are significant statistically (P value <0.01). The homologue two-rooted second molars showed results between the normal population and single root molars.

Discussion: This is the first analysis of the prevalence of single root molar in a large population of Israel. The results showed that the crown size is decreasing during the modern period and this reduction is increasing in single root molars, implicating that an on-going reduction in tooth size is happening, probably due to reduction of jaw size and the changes in food processing. More than that, single root molars is associated with higher percentages of impacted upper canines (9.9% VS 4% in the general population).

Biography

Uri Zilberman received the DMD degree in 1983 from the Dental Faculty, Hebrew University, Jerusalem, and a PhD degree in 2000 on basic dental science, especially dental anthropology. Dr. Zilberman has a specialist degree in pediatric dentistry from 1990 and treated children and adolescents for the last 45 years. Prof. Zilberman is the head of the Pediatric Dental Unit at Barzilai Medical University Center, a unit recognized for specialization in pediatric dentistry since 2007, and is Associated Professor at the Faculty of Health Science, Ben-Gurion University of the Negev, Beer-Sheva, teaching a course on Pathophysiology of the Oral Cavity for fourth year pharmacology students. Prof. Zilberman published more than 90 research papers and chapters in pediatric dentistry and dental anthropology. His main interests are new dental procedures and devices for pediatric dentistry, hereditary disorders and their effect on tooth development, and the use of biomimetic materials in pediatric dentistry, like Glass-Ionomers Cements. He developed new dental procedures and a patented new dental device for pediatric dentistry.



Zoha Haider^{1*}, Roshni Dave²

¹Dental Core Trainee, Birmingham Community Healthcare NHS Trust, United Kingdom

²Community Dental Service, Birmingham Community Healthcare NHS Trust, United Kingdom

‘What does this mean?’ – The use of abbreviations in clinical records

Background: Record keeping is an essential aspect of healthcare; abbreviations are often used within records to aid ease of understanding, and to allow for a more streamlined and concise notes. However, with a multitude of abbreviations within dentistry it is vital only approved abbreviations are used within records. This is for several reasons:

1. Certain abbreviations can have several meanings, for instance, RCT can mean root canal treatment or randomised controlled trial.
2. Within the Community Dental Services, patients are seen by several clinicians;
3. Legally, there is an obligation to provide a list of approved abbreviations if an individual/firm makes a subject to access request.

The use of unapproved abbreviations can increase clinical risk if there is confusion regarding its meaning, and can therefore reduce patient safety.

Objectives: To assess the use of abbreviations within clinical notes in the Paediatric Community Dental Service, and determine compliance with the most current guidance, 2017 local guidelines – there is currently no relevant national guidance. To identify commonly-used abbreviations not currently existing on the approved list.

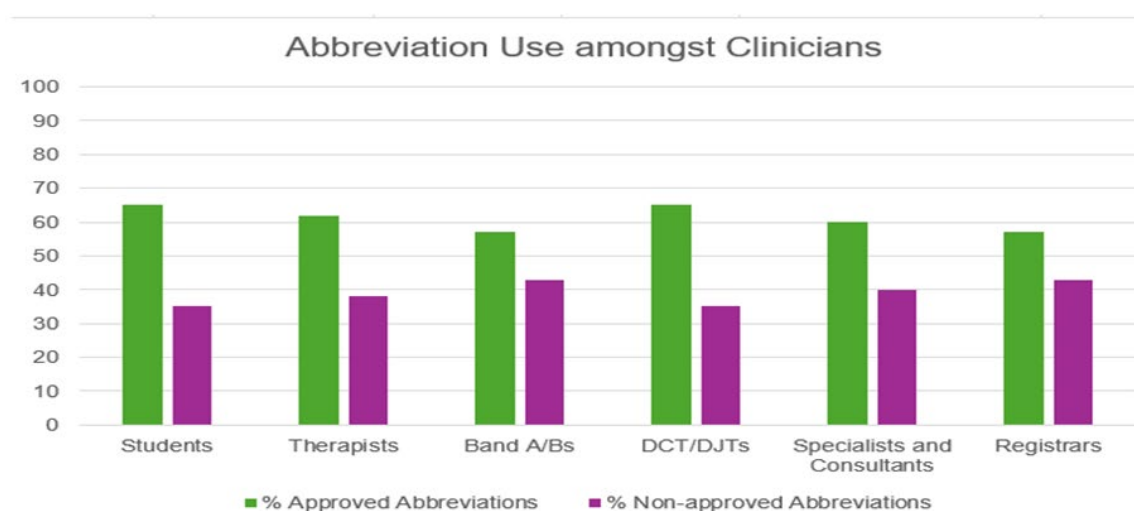
Method: Using the patient note software R4, we conducted a retrospective case note review of all patients seen within the service between the 19th-23rd May 2025. 134 records were identified, and every abbreviation was noted.

The Microsoft excel spreadsheet below was used to record the results

CDS Site	Clinic	Clinician	Abbreviations Used	Total number of abbreviations used	Total number of approved abbreviations used	Percentage of Abbreviations Used which were approved

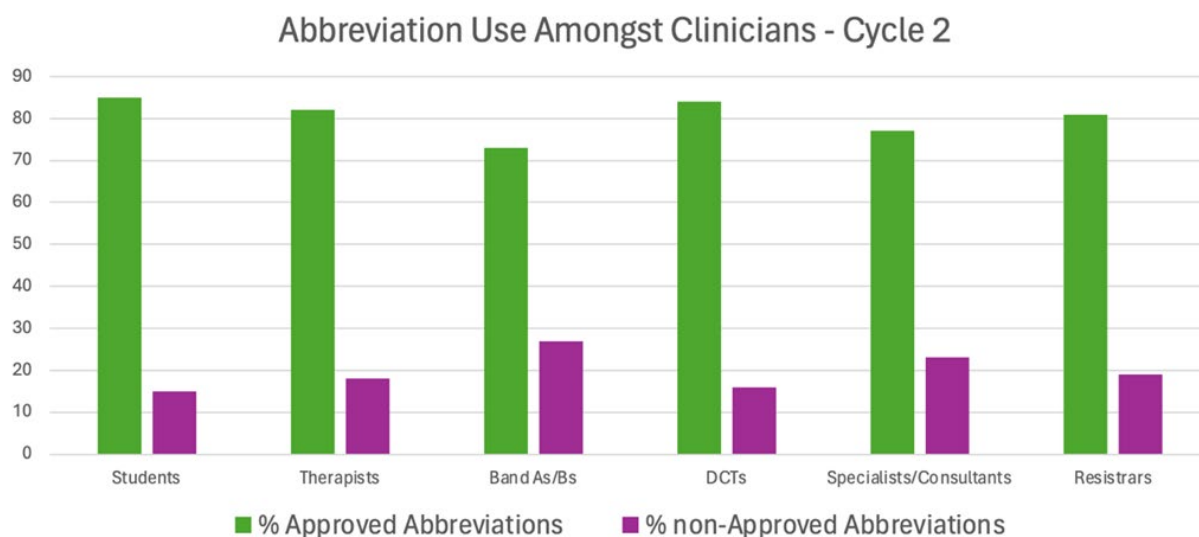
Results: Overall 5427 abbreviations were identified within the patient notes. 59% of these were approved. New patient assessments had the highest number of abbreviations used at 1908, 59% of which were from the approved list.

Graph 1 shows abbreviation use amongst different clinicians –



Conclusion: Approved abbreviation use is below the desired standard of 90%. Awareness of the approved list is low, however there is consistency between clinicians. Most abbreviations used were easy to understand. We recommended the service would benefit from a 2025 review, to be updated in line with newer terminology. The findings were disseminated to the paediatric team at the departmental audit meeting, and via email. 2025 updated guidance was also created with input from clinicians.

Cycle 2: Following the implementation of the above recommendations, a second cycle was carried out using the same methodology but with the new Paediatric Community Dental Service List of approved abbreviations/acronyms 2025 as a reference. 6054 abbreviations were identified between 8th–12th December 2025.



Overall compliance had increased by 18% between cycles 1 and 2, and general awareness of the list appears to have improved. There was general consistency between clinicians where approved abbreviations were between 73% and 85% of all used – this is significantly higher than cycle 1 for all types of clinicians. However, the overall results do still show the service is performing below the standard of 90%, with 77% of all abbreviations used being from the approved list. Continued awareness of this guidance, as well as potential introduction of inter-specialty trust-wide guidance is being considered. This would improve compliance and allow for greater standardised and streamlined practice.

Biography

Zoha Haider is currently working as a core trainee in the Restorative department of Birmingham Dental Hospital. She has previously worked within the Paediatric Community Dental Services, and has held prior roles in oral and maxillofacial surgery, oral surgery and special care departments. This wide range of clinical experience has allowed her to develop as a well-rounded clinician, having also completed impactful projects and presented these at specialty conferences at both national and international level. Haider enjoys working and building rapport to allow for a comfortable and positive dental experience for all patients.

12TH EDITION OF

INTERNATIONAL CONFERENCE ON

DENTISTRY

AND ORAL HEALTH

HYBRID EVENT
28-30
SEPTEMBER 2026

POSTER
PRESENTATIONS



Akshay Keerthy^{1*}, Mick Nagra^{2*}, Dylan Nagra^{3*}

¹Harvard University, USA; Temple University, USA

²Governors Academy, Massachusetts, USA

³Governors Academy, Massachusetts, USA

Periodontal disease as a modifiable inflammatory risk factor for cardiovascular disease: A systematic review of clinical and biomarker evidence

Periodontal disease is frequently cited as a potential inflammatory risk factor for cardiovascular disease, yet evidence supporting this is not yet conclusive. Observational studies reveal higher risk of subsequent cardiovascular disease, coronary heart disease, stroke, and first myocardial infarction among individuals with periodontitis compared to individuals without periodontitis. Reviews have also shown this association may be stronger among young adults and those with severe periodontitis. Though these findings hint that periodontal disease may affect certain populations more than others, there is not consistency in the magnitude of the association across studies. Biomarker data also provides some evidence for the development of systemic inflammation with periodontal disease. Periodontitis has been associated with increased C-reactive protein, interleukin-6, leukocytes, neutrophils, and markers of endothelial dysfunction. These findings bolster the theory that oral infection may increase overall inflammation. Proposed pathways reviewed in the literature also include invasion of oral bacteria into the bloodstream, local release of inflammatory mediators, prothrombotic alterations, and dyslipidemia. While the proposed biological mechanisms make sense, there are steps in the process that need further clarification. Data from treatment studies have primarily focused on surrogate outcomes. Periodontal treatment has been shown to improve inflammatory markers and has some evidence supporting improvement in endothelial function. There is also some evidence showing improvements in blood pressure and lipid levels with treatment, though these are mixed. However, the current body of randomized evidence does not support periodontal treatment reducing incident myocardial infarction, stroke, or other cardiovascular events. Together, the literature establishes periodontal disease as a potential modifiable inflammatory risk factor for cardiovascular disease. The main question that remains to be answered is if periodontal treatment can help prevent future cardiovascular events or if it simply improves biomarkers.

Keywords: Periodontal, Disease, Cardiovascular, Systematic, Review, Clinical, Biomarker, Evidence.



Biography

Dr Keerthy graduated with a DMD from Harvard University School of Dental Medicine and completed a M.S. in Oral Health Sciences and Endodontics Residency from Temple University Kornberg School of Dentistry. He has presented at Harvard Research Day, won awards for his research at the Temple University School of Dentistry and won top 10 Resident Research Award at the AAE in 2023. He has been published in the Journal of Dental Education and presented at the AAE annual conference. He is a member of the American Dental Association, the American Association of Endodontics and the Massachusetts Dental Society.



Mick Nagra is a student, TEDx speaker, patent holder, award-winning author, and co-founder of the North American Youth Research Society. Based in Massachusetts, Mick is an emerging youth innovator whose work bridges research, health technology, sustainability, and sports safety. He developed a skin cancer detection app. Mick has shared his work at international conferences, including two presentations at the World Youth Sustainability Summit. His research has been submitted to international journals. His accomplishments have earned him honours, including the Cambridge Center for International Research STEM Fellowship, Humanitarian Innovation Award, Innovation and Sustainability Award, National Leadership Award, and American Citizenship Award.



Dylan Nagra is a student, TEDx speaker, patent holder, award-winning author, and co-founder of the North American Youth Research Society. Based in Boston, Massachusetts, Dylan has presented at international conferences, including two presentations at the World Youth Sustainability Summit. His work spans youth research, innovation, sustainability, and health technology. He is also the creator of a skin cancer detection app and has contributed research that has been submitted to international journals. Dylan has received numerous recognitions, including the Cambridge Center for International Research STEM Fellowship, Beyond the Goal Award, Innovation and Sustainability Award, National Leadership Award, and American Citizenship Award.



Alisha Patel*, Steve Bassi

Eastman Dental Hospital, United Kingdom

The management of severe toothwear with composite injection moulding utilising a digital workflow

Introduction: Toothwear is the progressive loss of dental hard tissue due to physical and/or chemical processes and may result from attrition, erosion, abrasion, or a combination of these mechanisms. Depending on its severity, toothwear can have a significant impact on both dental function and aesthetics. Restoration of worn dentition using additive techniques can provide a minimally invasive approach to re-establishing tooth morphology and function. Composite injection moulding is a relatively new technique that allows predictable reproduction of a planned wax-up. The integration of intraoral scanning, digital wax-ups and 3D-printed models can further facilitate accurate pre-operative planning and clinical execution.

Case Presentation: A 43-year-old male presented with significant toothwear, predominantly affecting the upper anterior dentition. He reported increasing concern regarding the aesthetics of his teeth and mild sensitivity to cold over the preceding few months. Relevant risk factors included high levels of stress, with associated potential parafunctional activity, and a previous high intake of carbonated beverages. At presentation, he was not using a protective occlusal splint. Following assessment and discussion of treatment options, an additive restorative approach was planned. Composite build-ups of the upper and lower anterior teeth (UR3–UL3 and LR3–LL3) were proposed at an increased occlusal vertical dimension. An intraoral scan was used to facilitate digital treatment planning and design of the proposed wax-up, which was subsequently 3D printed to aid clinical planning. Composite injection moulding was selected to transfer the planned tooth morphology predictably to the patient's dentition using a carefully designed wax-up and injection moulding stent. The posterior dentition was subsequently monitored to allow adaptation to the planned increase in occlusal vertical dimension, following the principles of the Dahl concept.

Conclusion: This case demonstrates the potential benefits of integrating digital workflows with additive composite techniques in the management of localised anterior toothwear. Intraoral scanning and digitally designed, 3D-printed models can facilitate predictable treatment planning, while composite injection moulding allows conservative restoration of tooth morphology with an emphasis on both function and aesthetics. Successful management of toothwear requires not only restoration of lost tooth tissue but also identification and management of underlying risk factors to improve the long-term prognosis of the restorative treatment.

Biography

Alisha Patel graduated from the University of Birmingham in 2023 and has since completed training posts across a range of dental specialties, including Oral and Maxillofacial Surgery, Special Care Dentistry, and Restorative Dentistry. She is currently a Dental Core Trainee at the Eastman Dental Hospital, with a particular interest in Orthodontics.

Bahar Gharooni-Dowrani^{1*}, Alisha Sagar^{2*}

¹Guy's and St Thomas' NHS Foundation Trust,
United Kingdom

²University Hospital Southampton, United Kingdom

Imaging modalities in impacted tooth assessment: A review of CBCT (cone beam computed tomography) and parallax techniques

Accurate localisation of impacted teeth and early detection of associated root resorption are critical for effective diagnosis, treatment planning, and prevention of long-term complications. Conventional two-dimensional (2D) radiographic techniques, such as parallax using periapical and panoramic radiographs, have traditionally been employed to assess the position of impacted teeth and their relationship to adjacent structures. However, the inherent limitations of 2D imaging, including distortion, magnification, and superimposition of anatomical structures, may compromise diagnostic accuracy. Cone Beam Computed Tomography (CBCT) has emerged as an advanced three-dimensional (3D) imaging modality that may overcome these limitations by providing high-resolution volumetric data.

This poster aims to compare the effectiveness of CBCT and the parallax technique in identifying the position of impacted teeth and detecting root resorption of adjacent teeth. A review of current literature was undertaken to evaluate diagnostic accuracy, reliability, and clinical applicability of both imaging methods. Parallax techniques rely on the apparent movement of an object relative to surrounding structures when radiographs are taken at different angulations. While parallax is widely accessible, cost-effective, and associated with relatively low radiation doses, its accuracy is highly operator-dependent and limited in complex cases, particularly where buccolingual positioning or subtle root resorption is involved.

CBCT provides precise 3D visualisation of impacted teeth, enabling accurate assessment of buccolingual position, proximity to adjacent roots, and the presence, extent, and location of root resorption. Numerous studies demonstrate that CBCT is significantly more sensitive

than conventional radiography in detecting early and minor root resorption, which may be missed on 2D images. Furthermore, CBCT allows for improved treatment planning and risk assessment, particularly in cases involving maxillary canines.

In conclusion, while parallax remains a valuable first-line imaging technique, CBCT offers superior diagnostic accuracy for assessing impacted teeth and associated root resorption. Careful case selection is essential to balance diagnostic benefit against radiation exposure, supporting a justified and evidence-based approach to imaging.



Biography

Bahar Gharooni-Dowrani graduated from King's College London in 2024. She completed her foundation training in Hertfordshire and is currently a Dental Core Trainee at Guy's Hospital, working across the Oral Surgery, Oral Medicine, and Restorative departments.



Alisha Sagar qualified with a BDS from King's College London in 2024, completed Dental Foundation Training within the Winchester scheme, developing a strong interest in oral surgery and the management of acute dental conditions, and has since commenced Dental Core Training Year 1 in Oral and Maxillofacial Surgery at Southampton.



Belmokre Djacem*, Ayat Adel, Smaoun Samir

Department of Oral Implantology, Central Military Hospital of
Algiers, Algeria

Immediate implant placement in the anterior maxilla: A step-by-step approach for esthetic predictability

Background: Immediate implant placement (IIP) in the anterior maxilla is increasingly performed to reduce treatment time and preserve peri-implant tissues. However, it remains a highly technique-sensitive procedure, where minor deviations may lead to esthetic complications such as gingival recession, soft tissue discoloration, or buccal bone resorption.

Objective: To define the biological, surgical, and prosthetic determinants required to achieve predictable esthetic outcomes in immediate implant placement in the esthetic zone.

Materials and Methods: This work is based on the clinical experience of the Department of Oral Implantology at the Central Military Hospital of Algiers, supported by clinical cases illustrating different scenarios. A step-by-step clinical protocol is proposed, integrating patient selection, periodontal phenotype assessment, and cone beam computed tomography (CBCT) analysis to evaluate buccal bone integrity and sagittal root position. Particular attention is given to atraumatic extraction, prosthetically driven implant positioning, and peri-implant tissue management.

Results: Clinical outcomes emphasize the importance of strict adherence to key principles. Preservation of the buccal bone plate through atraumatic extraction is mandatory. CBCT evaluation allows accurate assessment of bone morphology and facilitates implant positioning. Implants should be placed in a palatal position, approximately 3 mm apical to the gingival margin, to ensure a stable emergence profile. Primary stability is achieved through apical anchorage (3–5 mm beyond the socket apex), while avoiding excessive implant diameter. Management of the peri-implant gap is critical: defects exceeding 2 mm require guided bone regeneration, often combined with connective tissue grafting to enhance soft

tissue thickness. Immediate provisionalization plays a key role in shaping peri-implant soft tissues and optimizing the Pink Esthetic Score.

Conclusion: Immediate implant placement in the esthetic zone can provide predictable and stable esthetic outcomes when guided by a structured step-by-step approach combining clinical and CBCT-based evaluation. Clinical cases demonstrate that appropriate case selection, precise three-dimensional implant positioning, and meticulous soft tissue management are essential. A clinical decision-making algorithm is proposed to reduce complications and improve long-term esthetic outcomes.

Keywords: Immediate Implant Placement, Esthetic Zone, Anterior Maxilla, CBCT, Periodontal Phenotype, Implant Positioning, Guided Bone Regeneration, Soft Tissue Management.

Biography

Dr. Djacem Belmokre is a dental surgeon specializing in oral pathology, oral surgery, and implantology. He received his Doctor of Dental Surgery degree from the Faculty of Medicine of Algiers in 2009 and completed a Diploma of Specialized Medical Studies in Oral Pathology, Oral Surgery, and Implantology in 2014. In 2022, he earned a Doctorate in Medical Sciences. With extensive clinical experience, Dr. Belmokre is dedicated to providing high-quality patient care and advancing his field through continuous education and research.



**Belmokre Djacem*, Nesrine
Mouassi, Ahmed Djebaoui,
Douniazed Cherif, Adel Ayat**

Department of Oral Implantology, Central Military Hospital of
Algiers, Algeria

Platelet-rich fibrin in implant dentistry: Clinical applications and regenerative potential

Background: Platelet-rich fibrin (PRF) is a second-generation autologous platelet concentrate widely used in implant dentistry due to its regenerative potential. By releasing growth factors and providing a fibrin matrix, PRF promotes both bone and soft tissue healing. Despite its increasing popularity, the clinical benefits of PRF remain a subject of ongoing debate.

Objective: To evaluate the biological properties and clinical applications of PRF in implant dentistry, with a focus on its role in enhancing tissue regeneration and improving clinical outcomes.

Materials and Methods: This study is based on the clinical experience of the Department of Oral Implantology at the Central Military Hospital of Algiers, supported by clinical cases illustrating various applications of PRF. Different protocols, including leukocyte- and platelet-rich fibrin (L-PRF) and injectable PRF (i-PRF), were used in pre-implant and implant procedures. Indications included sinus floor elevation, post-extraction socket management, guided bone regeneration, and immediate implant placement. PRF was used alone or in combination with bone graft materials.

Results: Clinical observations demonstrate that PRF enhances soft tissue healing and contributes to improved bone regeneration. Its use in sinus lift procedures may reduce healing time, while in immediate implant placement, PRF appears to improve primary stability and reduce marginal bone resorption. In guided bone regeneration, PRF acts as a biologically active scaffold, promoting angiogenesis and cell migration. Injectable PRF (i-PRF) shows promising results in stimulating fibroblast activity and growth factor release. However, variability in preparation protocols and the lack of standardized clinical studies remain limitations.

Conclusion: PRF represents a promising, cost-effective, and autologous biomaterial in implant dentistry. Its application may enhance healing and support tissue regeneration, particularly when combined with conventional grafting techniques. Nevertheless, further well-designed clinical studies are required to validate its long-term efficacy and standardize its use in daily practice.

Keywords: Platelet-Rich Fibrin, PRF, Implant Dentistry, Bone Regeneration, Soft Tissue Healing, Guided Bone Regeneration, Sinus Lift, Injectable PRF.

Biography

Dr. Djacem Belmokre is a dental surgeon specializing in oral pathology, oral surgery, and implantology. He received his Doctor of Dental Surgery degree from the Faculty of Medicine of Algiers in 2009 and completed a Diploma of Specialized Medical Studies in Oral Pathology, Oral Surgery, and Implantology in 2014. In 2022, he earned a Doctorate in Medical Sciences. With extensive clinical experience, Dr. Belmokre is dedicated to providing high-quality patient care and advancing his field through continuous education and research.



Ben Spillane*, Clare Gleeson, Ambareen Naqvi

King's College Dental Institute, King's College Hospital NHS
Foundation Trust, London, United Kingdom

Justification of flumazenil in a tertiary oral surgery centre

Benzodiazepine medications are the principal sedative for conscious dental sedation. Flumazenil is a mandatory medication in the provision of conscious sedation for the reversal of the effects of benzodiazepine medication. The indications for the use of Flumazenil are 'for the reversal of the effects of benzodiazepines.' It is expected that no more than 1% of sedations require flumazenil intervention. In this audit we looked at the justifications and implementation of flumazenil at King's College Hospital Dental Institute to assess the use of flumazenil in the sedation service for King's College Hospital Oral Surgery Department.

Data was collected from October 2024–October 2025 from the department flumazenil logbook and EPIC. Data were reviewed for the use and justification of flumazenil.

We found that justifications for the use of flumazenil are vague and further definition may be helpful when prescribing this medication.

We have made changes to the Flumazenil template to help record the justification. We have created a template to help with record consistency and improve records across the dental institute.

Biography

Ben Spillane works in the Oral Surgery department at King's College Hospital, having completed a year of training in oral and maxillofacial surgery, and is currently a clinical fellow in oral and maxillofacial surgery at the Northwest London Major Trauma Centre. In addition to dentistry, Ben also has experience as a Senior Lecturer/Lecturer in Anatomy at St George's University/Kingston University Joint faculty for 5 years, and has taught at six different universities across the UK and Australia. Ben is a Fellow of the Higher Education Academy and a member of the Faculty of Dental Surgery at the Royal College of Surgeons Edinburgh.



**Camille Danielsen^{1*},
Victoria Donohoe²**

¹Community Dental Services, Cwm Taf Morgannwg University Health Board, United Kingdom

²Health Education Improvement Wales, United Kingdom

Assessing appropriate triaging for domiciliary referrals: A clinical audit

Background: When patients are referred for a domiciliary visit within the Cwm Taf Health Board they are triaged by clinicians or admin staff. They are then categorised according to time urgency. This system has been created in order for patients with the greatest needs to be prioritised and seen within an appropriate time frame.

Aim: This audit aims to assess whether the current system is effective in correctly categorising these patients and to improve the flow of patients through the domiciliary referral process so that those in most urgent need are prioritised, whilst confirming whether local guidelines are being followed.

Standard: Local Cwm Taf Morgannwg University Health Board Guidelines – Categories for Domiciliary Visits.

Process: A retrospective audit of new patient assessment and emergency appointment documentation in 190 domiciliary patients seen by all clinicians within the Cwm Taf region over a three-month period. Data retrieved from SOE to include: initial triage category upon referral, origin of referral (FDS, self, telephone) and the correct category on presentation.

Results: Overall, 45 (24%) of patients had a discrepancy in their triage category to category on presentation, with 35 (78%) patients being in a higher category than triaged (less urgent issue on presentation). 36 (80%) were triaged by admin staff and all originated from self-referrals or telephone triaged referrals with none being referred through the FDS system.

Discussion and action plan: The audit demonstrated errors in the triaging system resulting in incorrect categorising of patients and therefore incorrect time-frames for assessment, with issues in the telephone and self-referral process and discrepancies between triaging carried out by clinicians and admin staff. Recommendations include more comprehensive triaging under a new self-referral and telephone triaging form, an increase in staff training, and a proposal of a new categorisation system for better prioritisation of patients. Changes have been implemented of the recommendations stated, currently waiting to re-gather data of the second cycle for audit completion which should be achieved within the next month.

Biography

Camille Danielsen is currently a Dental Core Trainee 3 in Oral and Maxillofacial Surgery, having completed foundation training and two years of Oral and Maxillofacial Surgery. She has a keen interest in Oral Surgery and hopes to progress into Specialty Training, building on the strong foundations developed throughout training. She strives to provide a calm, friendly and patient centred approach to care.



Emily Waters*, Karunakar Prabhu

Ipswich Hospital – East Suffolk and North Essex Foundation Trust, United Kingdom

An atypical oral presentation of pityriasis lichenoides chronica (PLC)

A 54 year old female presented to the Oral Surgery department following a two-week-wait referral made by her GP. She presented with an isolated 2x2cm non-healing erythematous ulcer of the right posterior soft palate. This had been present for approximately 5 weeks duration and appeared suspicious for squamous cell carcinoma (SCC).

Following an incisional biopsy which showed no malignancy or dysplasia, the patient disclosed that she had consulted a dermatologist regarding skin lesions and been diagnosed with a condition called Pityriasis Lichenoides Chronica (PLC).

Pityriasis Lichenoides (PL) is a spectrum of rare inflammatory idiopathic dermatological conditions thought to be T-cell mediated. PLC manifests gradually as very small red-brown maculopapules mainly affecting the trunk and extremities. The lesions can last several weeks before spontaneous regression, with long periods of remission as the course of eruptions occurs over many years prior to self-resolution.

The oral ulcer was monitored including clinical photography, and symptomatic relief achieved with the use of Benzydamine Hydrochloride mouth spray. As could be predicted, the ulcer regressed several months following the biopsy, leaving behind an area of hypopigmentation. Following a period of remission, it has since recurred as a small ulcer 2 years later and the patient continues to attend regular 6-12 monthly review appointments. She is no longer being followed-up by the consultant dermatologist.

This case report illustrates the importance of maintaining a flexible perspective when determining the differential diagnosis of lesions which are phenotypically similar to SCCs, ensuring the full clinical context and patient-specific factors have been considered.

Biography

Emily Waters graduated from King's College London in 2024. She completed her dental foundation training in the North East of England and is currently a Dental Core Trainee in Oral Surgery at Ipswich Hospital. Prior to dentistry, she completed her undergraduate studies in Biomedical Science at the University of Sheffield where she graduated in 2020. She will soon be undertaking her second year as a Dental Core Trainee in Orthodontics & Paediatric Dentistry in the North West, and is currently undertaking her MFDS examinations.



Gianne Williams*, Hany Eldweny, Divya Sharma, Navin Vig

Queen Victoria Hospital, United Kingdom

Adult tongue rhabdomyosarcoma (RMS): A rare case report and review of diagnostic and therapeutic challenges

Rhabdomyosarcoma (RMS) is a malignant mesenchymal neoplasm characterized by skeletal muscle differentiation and is predominantly a paediatric malignancy. It represents the most common soft-tissue sarcoma in children; however, its occurrence in adults is rare and often associated with a poorer prognosis. Within the head and neck region, RMS commonly arises in the orbit, nasopharynx, or paranasal sinuses. Primary involvement of the tongue in adults is exceedingly uncommon, creating diagnostic and therapeutic challenges for clinicians in oral and maxillofacial surgery.

This report describes a rare case of rhabdomyosarcoma of the tongue in and discusses the clinical, radiological, histopathological, and management considerations relevant to this unusual presentation. A 35-year-old female presented with a firm asymptomatic slow growing mass on the anterior tip of the tongue. Clinical examination revealed a 20 mm x 10 mm distinct palpable lesion on the midline of the tongue, with slightly erythematous overlying mucosa. Initial differential diagnoses included benign muscular tumours, granular cell tumour, minor salivary gland neoplasm, and soft tissue sarcoma. Magnetic resonance imaging demonstrated a well-defined soft-tissue lesion indicative of a minor salivary gland tumour without obvious nodal involvement.

An excisional biopsy followed by histopathological analysis revealed a malignant indolent spindle-shaped rhabdomyosarcoma with evidence of skeletal muscle differentiation. Immunohistochemical staining showed positivity for desmin, myogenin (sparse), and MyoD1 (extensive), confirming the diagnosis of rhabdomyosarcoma. Further staging investigations excluded distant metastasis.

The patient was later referred to a different centre following a multidisciplinary discussion involving oral and maxillofacial surgery, oncology, and pathology teams.

Adult rhabdomyosarcoma of the tongue is extremely rare and may mimic more common benign or malignant oral lesions, leading to potential delays in diagnosis. Early biopsy of suspicious tongue lesions and the use of immunohistochemistry are essential for accurate diagnosis. Due to the rarity of this tumour in adults, optimal treatment strategies are not well standardized, but current evidence supports aggressive multimodal therapy combining surgery, chemotherapy, and radiotherapy to improve outcomes.

This case highlights the importance of considering rhabdomyosarcoma in the differential diagnosis of unusual tongue masses in adults and underscores the need for early multidisciplinary management to optimize prognosis.

Biography

Dr. Gianne Williams is a Dental Core Trainee (DCT2) in Oral and Maxillofacial Surgery with a strong interest in oral surgery and patient-centered care. Following graduation from King's College London University, Gianne has since gained broad clinical experience through core training posts. Gianne's interests include dentoalveolar surgery, management of impacted teeth, and minor oral surgical procedures, and Gianne is committed to developing surgical skills through hands-on experience, courses, and conferences. Gianne values evidence-based practice and effective communication, and is dedicated to delivering safe, high-quality care.



**Hunayda Abdulmula*,
Ojas Krishnan, Lachlan Carter,
Daniel Tyler, Zynab Jawad, Timothy
Austin, Jonathan Shelswell**

Oral and Maxillofacial Surgery Department, Leeds Teaching
Hospitals Trust, United Kingdom

Surgical management of macroglossia in Beckwith–Wiedemann syndrome (BWS): A longitudinal, multidisciplinary care pathway

Beckwith–Wiedemann syndrome (BWS) is a rare congenital condition commonly associated with macroglossia, which may result in functional impairment, airway compromise, speech difficulties, and challenges in long-term craniofacial development. Management often requires staged intervention across childhood and adulthood, with careful coordination between surgical and dental specialties.

This poster presents the longitudinal management of a patient with Beckwith–Wiedemann syndrome who underwent tongue reduction surgery as part of a planned, multi-phase treatment pathway. The patient had a history of macroglossia managed surgically in childhood. As definitive orthodontic and orthognathic treatment was anticipated in adulthood, repeat tongue reduction was undertaken to optimise function and reduce the risk of relapse following future skeletal correction.

The surgical approach utilised an Obwegeser-type midline wedge glossectomy, designed to preserve tongue contour while minimising the risk of injury to the lingual arteries. Intra-operative considerations included haemostasis and airway planning, with post-operative management focused on close airway monitoring and early assessment of swallowing function.

This case highlights the importance of staged surgical intervention, careful airway and functional monitoring, and long-term planning in patients with syndromic macroglossia. Tongue reduction surgery can play a key role not only in symptom relief but also in facilitating successful orthodontic and orthognathic outcomes within a comprehensive care pathway.

Biography

Hunayda Abdulmula graduated from the University of Leeds in 2024 and completed Dental Foundation Training in West Yorkshire, during which she took part in community-based oral health promotion projects. She is currently a Dental Core Trainee within the Oral and Maxillofacial Surgery Department at Leeds Teaching Hospitals NHS Trust. Her clinical interests include surgery, the management of complex patients, and delivering high-quality healthcare to vulnerable and underserved populations.



Lance Lesterpearson

Croydon University Hospital, Royal Free London NHS Trust,
United Kingdom

Management of missing maxillary lateral incisors in hypodontia: Clinical consideration and treatment pathways

Hypodontia is the congenital absence of one or more teeth, affecting both the primary and permanent dentitions (Nunn et al., 2003). Missing maxillary lateral incisors represent the second most common presentation in the acceptable sequence of hypodontia (Poder et al, 2004). The aetiology is complex, follows a polygenic pattern of inheritance, and remains incompletely understood.

Management of hypodontia often requires a multidisciplinary team (MDT) approach, involving paediatric dentistry, orthodontics, restorative dentistry, and maxillofacial surgery where appropriate. It is important to understand the clinical features and challenges associated with missing maxillary lateral incisors and outline treatment objectives and pathways following completion of orthodontic treatment.

Treatment strategies include space closure with canine substitution, space opening for resin-bonded bridges, and site preparation for implant placement. Canine substitution presents challenges such as bulbosity, increased crown width, a darker colour due to higher phosphoprotein content, and unfavourable gingival margin levels, often requiring elective enameloplasty and aesthetic modification. Resin-bonded bridge option requires careful design selection and carries risks including debonding and secondary caries. Implant-based solutions require precise space management and long-term planning.

For each option, clinical considerations, technical challenges, and management strategies are important to understand. Furthermore, the role of the general dental practitioner is in long-term monitoring, maintenance, and coordination of care.

Clinical examples and evidence-based approaches will enable clinicians to develop a clearer understanding of multidisciplinary decision-making and practical management strategies for patients with missing maxillary lateral incisors.

The authors acknowledge that this research was undertaken during a two year Dental Foundation Training placement funded by NHS Workforce, Training and Education (WT&E), London Region.

Biography

Lance Lesterpearson is a second-year trainee on the Joint foundation and core training programme in London, working across general practice and Croydon University Hospital, and gaining valuable experience in Oral surgery, Orthodontics and Restorative Dentistry. He graduated with BDS (Hons) from Peninsula Dental School in 2024. During his the final year, he was selected to represent the university at the national Dentsply Sirona RCS Edinburgh Competition. His recent achievements include completing a Diploma in Leadership and Management. Lance is committed to advancing global oral health through charitable dental initiatives.



Lucy Bennett*, Sehrish Khalid, Sheena Kotecha

Birmingham Dental Hospital, United Kingdom

Retention coordination after orthodontic-restorative treatment: A two-cycle audit

Aim: To assess the provision and coordination of orthodontic retention following joint orthodontic-restorative treatment. Gold standards were: (1) 100% of patients receiving restorative treatment after orthodontics should receive appropriate retention post-restoration; and (2) 100% should have a documented orthodontic review following completion of restorative care.

Methods: A two-cycle audit was undertaken at Birmingham Dental Hospital. Cycle one retrospectively identified patients receiving one or more Resin-Bonded Bridges (RBBs) between January–June 2025 using laboratory records and clinical notes to confirm joint orthodontic care. Data was collected using a standardised Excel data sheet. Outcome measures included provision, type and timing of retention, and documented referral for orthodontic review. Following cycle one, a standardised referral pathway and clinician guidance were introduced. Cycle two used identical methodology with prospective data collection to evaluate intervention impact.

Results: In cycle one ($n=25$), orthodontic retention was provided in 96% of cases and restorative retention in 80%. Orthodontics most commonly provided dual-modality retention (Hawley and Essix), while restorative teams predominantly provided Essix retainers. Only 55% of patients had a documented orthodontic review arranged following restorative treatment, below the gold standard.

Discussion: Although retention provision was generally good, inconsistencies existed regarding responsibility, timing, and interdepartmental communication, highlighting challenges within multidisciplinary orthodontic care.

Conclusions & Action Plan: Implementation of a structured referral pathway aims to improve communication, ensure appropriate provision of retention, and standardise follow-up. The re-audit demonstrated an improvement in the pathway, with retention being provided more frequently and reviewed appropriately with orthodontics. These preliminary findings will support assessment of the sustainability of these improvements and help inform wider service development.

Biography

Lucy Bennett graduated from the University of Manchester in 2022. Following graduation, Bennett completed Dental Foundation Training in Oxford before undertaking Dental Core Training (DCT1–3) across a range of specialties, including Oral and Maxillofacial Surgery, Paediatric Dentistry, Special Care Dentistry, and Restorative Dentistry at centres across the UK. Alongside clinical training, Bennett obtained Membership of the Royal College of Surgeons of Edinburgh (MFDS RCSEd) and a Postgraduate Certificate in Dental Education from Newcastle University. Bennett has also completed additional postgraduate training in inhalation sedation, cone beam computed tomography (CBCT), and the Edward Jenner Leadership Programme.



Mihoubi Hicham

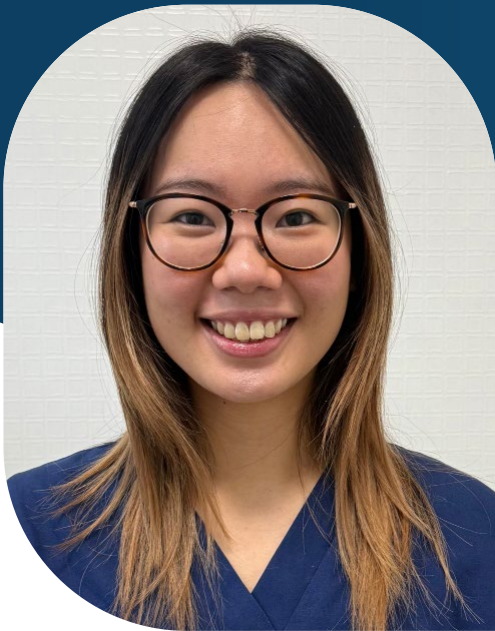
Faculty of Dentistry, University of Medical Sciences of Algiers,
Algeria

MTA (mineral trioxide aggregate) pulpotomy for deep caries in MIH (molar incisor hypomineralization)-affected first molars: Clinical benefits

Molar Incisor Hypomineralization (MIH) affects approximately 13–14% of children worldwide, making it a common challenge in pediatric dentistry. First permanent molars with MIH are particularly vulnerable due to their porous enamel and dentin, which allow bacteria and their toxins to penetrate easily. This often leads to chronic pulp inflammation (pulpitis), even before extensive cavities are clinically apparent. Preserving pulp vitality in these teeth is essential to prevent pain, maintain function, and avoid complex restorations. Mineral Trioxide Aggregate (MTA) pulpotomy offers a minimally invasive, biologically driven solution that promotes pulp healing and long-term survival, even in deep carious lesions. This presentation highlights the clinical rationale, demonstrates practical techniques, and reviews evidence showing how MTA pulpotomy can transform the management of MIH-affected molars, prioritizing preservation over extraction and improving outcomes for young patients.

Biography

Mihoubi Hicham is an Assistant Professor at the Faculty of Dentistry, Algiers, specializing in Conservative Dentistry and Endodontics, and is pursuing a subspecialty in Pediatric Dentistry, inspired by his passion for helping children maintain healthy teeth. Mihoubi actively participates in dental conferences and workshops, sharing knowledge and learning from colleagues. His research focuses on vital pulp therapies for first permanent molars affected by Molar Incisor Hypomineralization (MIH) with deep carious lesions, as part of a doctoral project for the Doctorate in Medical Sciences, and is dedicated to minimally invasive dentistry and improving outcomes for young patients.



Pui Sze Kylie Li

Northumbria Healthcare NHS Foundation Trust,
United Kingdom

An evaluation of routine preventive care in children based on Public Health England's Delivering Better Oral Health (DBOH) toolkit

Introduction: Oral health is a significant part of a child's development and wellbeing. Despite the overall decrease in caries prevalence over the years, childhood caries continues to be present in the United Kingdom (UK). Dental professionals have an important role in the prevention of disease, and the current guidance in the United Kingdom is outlined in the Delivering Better Oral Health (DBOH) toolkit published by Public Health England.

Aim: The aim of this project was to improve the quality of preventive care in relation to the assessment, advice and treatment planning for children in dental practice. This would be achieved by evaluating paediatric patient records against the DBOH guidance and implementing changes in the practice to improve compliance. The standard was for 90% of records to be fully compliant in all domains of the guidelines.

Method: This was a two-cycle audit reviewing a total of 40 NHS paediatric patients. The first cycle was a retrospective analysis of 20 records. This was followed by changes implemented in the practice and a second audit cycle which prospectively assessed a further 20 records. The audit was designed around seven domains from the prevention pathway in the DBOH guidance. Domains 1-3 were on the quality of patient assessment, domains 3-6 on the quality of prevention advice and treatment planning, and domain 7 on whether contractual obligations were met. Each domain contained several criteria and were graded from 1 to 3 – grade 1 if all criteria were met, grade 2 if one criterion was missing, and grade 3 if two or more criteria were missing.

Results: In the first audit cycle, 2 out of 7 domains met the set standard, achieving grade 1 in 100% of the records. The remaining 5 domains achieved less than the standard. Following changes to practice, the second audit cycle showed an overall positive shift towards the standard, with the standard being met in 4 domains. There were also a higher proportion of grade 1s and lower proportion of grade 3s, indicating that more criteria were met in the records.

Conclusion: The changes in the practice have resulted in greater compliance with the DBOH toolkit and hence an improvement in the quality of preventive care provided to paediatric patients, although further audit cycles are still needed to address the remaining gaps in compliance. All dental practices would benefit from 6-monthly audits on compliance with the DBOH guidance. Through the provision of evidence-based care, patient education and support for behaviour change, the collective aim is to reduce oral health inequalities and disease on a national level.

Biography

Pui Sze Kylie Li qualified from Cardiff University in 2022. Since then, she has worked in general dental practices in North East England and South Wales. She has undertaken two years of Dental Core Training in Oral and Maxillofacial Surgery within the South West of England. During this time, she has also completed the MFDS qualification with the Royal College of Surgeons of Edinburgh.



**Shaun Dolby*, J. Ross, K. Shoker,
E. Gruber, F. Kellett**

NHS England Midlands Workforce Training and Education,
United Kingdom

Longitudinal Joint Dental Foundation and Core Training (JDFCT): Evaluation of a pilot programme

Introduction: The UK NHS faces a critical dental workforce shortage, compounded by geographical inequities in access to care. Traditional postgraduate dental training follows a sequential pathway from Dental Foundation Training (DFT) to Dental Core Training (DCT), requiring multiple national recruitment processes and often necessitating frequent geographical relocation. These structural features create social, financial, and logistical barriers for trainees and may negatively impact workforce retention. In response, NHS Midlands developed a pilot Longitudinal Joint Dental Foundation and Core Training (JDFCT) programme as part of an early-career workforce initiative. This integrated two-year model combines DFT and DCT1, with the aim of enhancing training continuity, clinical competence, and workforce stability, particularly in underserved areas.

Methods: An anonymous mixed-methods survey of trainees and educational supervisors was undertaken to evaluate the pilot programme. Outcomes assessed included overall satisfaction, clinical exposure and competency development, confidence in secondary care, and perceived preparedness for future roles.

Results: Respondents reported substantial benefits, including improved integration of learning across primary and secondary care, earlier exposure to complex cases, enhanced continuity of supervision, and increased clinical confidence. 93% of trainees indicated they would choose the programme again. Challenges identified included administrative burden associated with dual portfolios, variable access to surgical experience particularly in oral surgery during the initial supernumerary phase and inconsistent induction processes across placements.

Discussion and Conclusion: Targeted recommendations included the introduction of a unified induction, streamlined portfolio requirements and protected surgical training opportunities. Subsequent iterations of the programme have addressed early limitations. The JDFCT pilot demonstrates a promising, adaptable model for postgraduate dental training that may support trainee development, workforce retention, and reduction of health inequalities. Further evaluation is required to assess long-term outcomes and scalability, but this model offers valuable insights for those seeking to reform early postgraduate dental education.

Biography

Shaun Dolby holds a BSc in Biochemistry and Genetics from the University of Nottingham (2011) and completed his graduate-entry dentistry degree at King's College London in 2015. Following Dental Foundation Training (DFT) in the East Midlands, he undertook Dental Core Training (DCT) years 1 and 2 in Oral Surgery and Oral & Maxillofacial Surgery (OMFS) within the Yorkshire Deanery, during which he also achieved his MJDF qualification. From 2018 to 2024, he worked as a Specialty Doctor in the OMFS department at James Cook University Hospital. He is currently undertaking an Advancement Fellowship within NHS Midlands, focusing on workforce support, professional development, and the identification, management and prevention of professional burnout, following completion of a Leadership and Management Fellowship in Oral Surgery. Clinically, he works at Birmingham Dental Hospital as a Specialty Doctor in Oral Surgery. His professional interests include oral surgery, the management of medically compromised patients, and the provision of urgent dental care. Ultimately, he aspires to become the Clinical Director of an urgent dental care centre while providing direct patient care alongside workforce development.



**Theodore Wong*,
Francesca Rodrigues, Stephanie
Wing Yin Kong**

Aberdeen Dental Hospital, United Kingdom

An audit of the confidence of final year dental students regarding the early career pathways at Aberdeen Dental School after an educational intervention

Are final year dental students really prepared for the realities of early career planning?

Many final-year dental students approach graduation feeling unsure about their next steps. With the pressure of exams and clinical requirements, it is easy for early career planning to fall to the side. As a result, students often report gaps in their understanding of the pathway to take after receiving their dental degree. This uncertainty can make the transition from dental school into practice feel more stressful than it needs to be.

To help address this, Aberdeen Dental School introduced an educational session during Practice Week. The session was delivered by three recently qualified dentists currently working as Dental Core Trainees, who spoke honestly about their own experiences and the decisions they faced after graduation. A short questionnaire was given to students before and after the talk to assess changes in their understanding, clarity, and confidence in relation to early career planning. The audit standard was for at least 70% of students to score three or above on a five-point Likert confidence scale following the session.

Before the intervention, just over half of the students (57.14%) felt clear about their post-graduate plans, and 75% felt confident in navigating the DFT/VT application process. After the session, both clarity and confidence rose to 100%, with students commenting that hearing directly from dentists who had recently completed these stages made the information more relatable and easier to understand.

This audit suggests that brief, peer-delivered teaching can meaningfully support dental students as they prepare for the transition into practice. Embedding similar sessions more widely may help improve preparedness and reduce anxiety for future graduating cohorts.

Biography

Theodore Wong BDS, MFDS RCSEd, is a Dental Core Trainee in Restorative Dentistry at Aberdeen Dental Hospital with six years of experience in general practice and hospital settings. He graduated from the University of Dundee in 2019 and completed his vocational training on the Isle of Islay before working as a dental associate. Theodore began Dental Core Training in Inverness within Oral and Maxillofacial Surgery and the Public Dental Service, later progressing to his current post. He serves as Sponsorship Secretary for the BDA Aberdeen Committee and has led multiple quality improvement projects. Outside dentistry, Wong enjoys hiking and travelling.



Thushara Thayaparan

Specialty Trainee in Special Care Dentistry, Surrey and Sussex Healthcare NHS Trust, United Kingdom

Evaluating remimazolam for safe and effective sedation in older special care patients

Background: An increasing number of older patients with multimorbidity and cognitive conditions will need dental care under IV sedation and present challenges for dental sedation due to increased sensitivity to sedative agents. Traditionally, midazolam is used for intravenous sedation, and older patients require a slower titration. With its rapid onset and shorter half-life, remimazolam may offer an alternative to midazolam with a potential reduced respiratory depression and faster recovery.

Aims:

1. Evaluate the efficacy and safety of single-drug IVS with remimazolam for patients aged 60 and above with multimorbidity in a district general hospital dental unit.
2. Identify the patient groups sedated, their treatment outcomes, and if any complications occurred.

Method: Data from an intravenous sedation logbook was analysed for patients aged 60 and over. Information collected included: 2 patient age, Ellis grade, ASA grade, total remimazolam dose, dental treatment provided, complications and operator feedback.

Results: Ten cases were identified. Treatments were completed with no adverse events or complications. Procedures were generally short with quick recovery. No cases required the use of flumazenil.

Discussion: Remimazolam demonstrated advantages over midazolam for brief dental procedures, including reduced respiratory depression, rapid recovery, and minimal adverse effects. While remimazolam costs significantly more than midazolam, its safety profile and efficacy for older patients with complex medical needs make it a valuable sedative option in special care dentistry.

Biography

Dr. Thushara Thayaparan graduated with a Bachelor of Dental Surgery (BDS) with Honours from King's College London in 2021. Following graduation, she completed Foundation Training in general practice, where she developed a strong foundation in comprehensive patient care. She then undertook Dental Core Training Year 1 gaining experience in Oral and Maxillofacial Surgery as well as Special Care Dentistry and in the Community Dental Services. Dr. Thayaparan subsequently worked within Community Dental Services in Surrey, managing paediatric and special care patients, including those with complex medical, behavioural, and additional needs. She is currently a Specialty Trainee (ST1) in Special Care Dentistry, Surrey and London. Through her training, she has developed a broad clinical skill set in both hospital and community-based dentistry, with a particular interest in the management of medically complex and vulnerable patient groups.

WE WISH TO MEET YOU AGAIN AT OUR UPCOMING EVENTS

13th Edition of International Conference on
Dentistry and Oral Health
September 20-22, 2027 | United Kingdom | Hybrid Event
<https://dental-conferences.magnusgroup.org/>



LONDON
UK



Questions? Contact

Phone: +1 (702) 988-2320 | Whatsapp: +1 434 264-7183

E-mail: dental@magnusconference.com