



ABAOMS

Association of British Academic
Oral and Maxillofacial Surgeons

Updating in Upheaval

The annual scientific conference online for the first time

21st -22nd May 2021

Organising committee:

Prof Justin Durham, Newcastle
Dr Katarzyna Gurzawska-Comis, Birmingham
Dr Hanya Mahmood, Sheffield
Prof. Vas Sivarajasingam, Cardiff
Dr Helen Stancliffe, Newcastle
Dr Kate Taylor, Liverpool

Welcome from the President:

This has been a challenging and turbulent year across our clinical, educational, professional and personal worlds. Our annual meeting in 2020 was cancelled without financial detriment and we thank the Glasgow team led by Dr Kurt Naudi for arranging this and acting so quickly. We hope with a change in the pandemic to reinstate our present-in-person meeting from 2022 onwards. In the interim we realised potentially how difficult it was to keep up to date. This conference is an effort not only to help with this, but also offer opportunity for our junior, mid and senior career colleagues to present research data, audits and cases. We were also mindful that financially this year may well have been challenging for a variety of reasons, so we have kept costs at zero for existing members and obviously also welcome any new members to the meeting for our usual annual membership fee.

I hope 2021 proves to be a more positive and improving year for us all.

All the very best.

Prof Justin Durham
President ABAOMS

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Friday 21st May (all times are GMT)

Lecture title or Session	Speaker(s)
0900 Conference opening	Prof Justin Durham & Dr Kate Taylor President and President-elect ABAOMS
0910 Expert panel session – Educating in a pandemic Chaired by Dr Helen Stancliffe, Specialist Oral surgeon & Speciality Teaching Fellow, Newcastle	
0910 Assessment: what did we learn from the pandemic?	Dr Charlotte Emmanuel, Senior Lecturer, Specialist Oral Surgeon & Director of Assessment, Cardiff
0920 Chasing competency in a pandemic: continuous vs block allocation	Dr Rachel Green, Specialist Oral Surgeon, Lecturer & Clinical Teaching lead Oral Surgery, Newcastle
0930 The national picture pre- and peri-pandemic	Dr Helen Clark, Clinical Teaching Fellow Oral Surgery & Chair ABAOMS Education group, Leeds
0940 Panel & audience discussion 30 mins	
1010 Break	
1020 Open paper session – Oral presentation Chaired by Dr Kate Taylor, Senior Lecturer, Hon Consultant Oral Surgeon & President-Elect ABAOMS, Liverpool	
1020 Mandibular Distraction Osteogenesis: a role in the management of paediatric airway obstruction	Dr Edward Fahy Senior House Officer, Maxillofacial Unit, St James Hospital, Dublin
1035 3D guided early loading of implants in reconstructed severely atrophic maxillary bones	Dr Jennifer Spiller DCT3 OMFS, Manchester Royal Infirmary
1050 The impact of the waferless osteotomy approach, using patient specific guides and plates in orthognathic surgery: a systematic review	Dr Ailish Williams DCT2 OMFS, Prince Charles Hospital

1110 Break

- 1120 **Invited lecture**
Interdigitating oral surgery & orthodontics
- Dr Ian Corbett,
Consultant Oral Surgeon & Hon Senior
Lecturer, Newcastle

1220 Lunch break & Pre-recorded poster session.

Chaired by Prof Justin Durham, Professor of Orofacial Pain, Hon Consultant Oral Surgeon, & President ABAOMS, Newcastle.

- 1220 An unusual presentation of a Carotid Pseudoaneurysm
- Dr Charlotte Frazer Cox
DCT, Glan Clwyd Hospital
- 1225 Reticulohistiocytoma - a rare diagnosis of a lip swelling
- Dr Hanya Mahmood NIHR ACF OS
School of Clinical Dentistry, Sheffield
- 1230 Isolated Langerhans cell histiocytosis of the oral cavity in a 25-year-old female: A rare case report with review of the literature
- Dr Hazel Kerr
DCT2 OMFS, Royal Free London NHS
Foundation Trust
- 1235 The use of KLS martin fabricated custom guide for scapula free flap in reconstruction following squamous cell carcinoma resection
- Dr Shima Chundoo
DCT3, Birmingham Children's Hospital
- 1240 Papillary Renal Cell Carcinoma
- Ms Angela Boscarino
DCT1, Arrowe Park Hospital
- 1245 Unusual lip tumours: a case series
- Dr Claire Wilson StR OS
Charles Clifford Dental Hospital, Sheffield
- 1250 **Sponsor presentation by Nobel Biocare**

1300 Invited lecture session - Updates amongst upheaval.

Chaired by Dr Sarah McKernon, Specialist & Lecturer in Oral Surgery, Liverpool

- 1300 Oral Pathology version 2021: Making sense of it as a surgeon
- Dr Ali Khurram,
Senior lecturer & Hon Consultant Oral
and Maxillofacial Pathologist, Sheffield
- 1350 Oral Medicine 10 years ago and now: what's changed?
- Dr Sabine Jurge,
Consultant & Hon Senior Lecturer in Oral
Medicine, Sheffield
- 1430 Persistent orofacial pain pre-op and post-op: Plenty of problems, any solutions?
- Prof Justin Durham,
Professor Orofacial Pain & Hon
Consultant Oral Surgeon, Newcastle

1510 Break

- 1520 **Open paper session – Oral presentation**
 Chaired by Dr Katarzyna Gurzawska-Comis, Specialist Oral Surgeon & NIHR Clinical Lecturer, Birmingham
- 1520 Management of inferior alveolar nerve and lingual nerve injuries in the UK – A cross-sectional study
 Dr Alex Orchard MSc Epidemiology Student & Dentist, University of Bristol
- 1535 Robotic stroking on the face and forearm: touch satiety and effects on mechanical pain
 Dr Pankaj Taneja
 Post-doc in Oral Surgery, University of Aarhus, Denmark
- 1550 “[I was] treated more like a dentist than a student”- the role of the dental nurse in dental undergraduates’ skill development.
 Miss Emma Robinson
 Clinical fellow, Newcastle University
- 1605 An evaluation of referrer factors for referrals made to the West Yorkshire Oral Surgery Managed Clinical Network over a 3-year period.
 Dr Richard Moore
 Lecturer & Specialist in Oral Surgery, Leeds University
- 1620 Evaluating Salivary Biomarkers for Head and Neck Squamous Cell Carcinoma
 Dr Manas Dave
 NIHR ACF Oral Pathology, University of Manchester
- 1635 An unusual metastatic mass: A rare presentation of oesophageal carcinoma
 Dr Pradeep Sandhu
 DCT2 OMFS, University Hospitals Bristol
- 1645 Plenary to close

Saturday 22nd May (all times are GMT)

Lecture title or Session	Speaker(s)
0900 Invited lecture session - Implantology Chaired by Dr Hannah Desai, Specialist Oral Surgeon & Speciality Teaching Fellow, Newcastle	
0900 Implant Prosthodontics driving the surgeon	Dr Francis Nohl, Consultant/Hon Senior Lecturer Restorative Dentistry & Degree Programme Director Implantology, Newcastle
0950 No bone, no problem? Bone augmentation by grafting, lifting and avoiding	Prof Julian Yates, Professor and Hon Consultant in Oral Surgery, Manchester
1030 "It's not numb, it's painful!" Nerve injuries in implantology	Prof Tara Renton, Professor and Hon Consultant in Oral Surgery, King's Hospital & College, and Guy's & St Thomas Foundation Trust London
1120 Break	
1130 Open paper session – Oral presentation Chaired by Dr Hanya Mahmood, NIHR Doctoral Fellow & Hon StR Oral Surgery, Sheffield	
1130 Summary of European guidelines on infection control and prevention during COVID-19 pandemic	Dr Kasia Gurzawska-Comis NIHR CL OS, School of Dentistry, University of Birmingham
1145 Aerosols and droplets in dentistry—from research to practice	Dr James Allison Clinical Fellow, Newcastle University
1200 Going paperless during COVID-Tracking hospital staff morale during the transition to electronic health records	Dr Gabriele Baniulyteave ACF OS, Royal Devon & Exeter Hospital
1215 The role of teleclinics in Oral Surgery during the COVID-19 pandemic	Dr Afnan Ibraheim Specialty Doctor, Eastman Dental Hospital
1230 Lunch or simultaneous sessions	

1230 Lunch or simultaneous sessions A or B below

Session A: Invited panel for Q&A on National recruitment for Oral Surgery clinical and academic careers

Panel:

Dr Julia Palmer, NIHR ACF Oral Surgery, Newcastle

Dr Emma Beecroft, NIHR ACF Oral Surgery, Newcastle

Dr Rachel Green, Training Programme Director Oral Surgery HEE North-East

Dr James Spencer, Postgraduate Dean Yorkshire & Humber and Lead Dean for National Recruitment

Prof Justin Durham, Associate Dean for Dental Integrated Academic Training NIHR Academy

1230 Session B pre-recorded posters

1230 How the COVID-19 experience affected the referral base, presentation, treatment and immediate outcome of oral cancer in an East Yorkshire regional OMFS Head and Neck unit. An epidemiological review of 2019 vs 2020.

Dr Lorna Gladwin
DCT1, Hull University Teaching Hospitals

1235 The effect of the COVID-19 pandemic (first and second lockdown) on Maxillofacial Trauma at the Irish National Maxillofacial Unit.

Dr. Harriet Byrne
Senior house officer, St. James Hospital, Dublin

1240 Surgical Management of Parotid Sialolithiasis Associated with Sjögren's Syndrome

Dr Darcy Belcher
DCT, Charles Clifford Dental Hospital, Sheffield

1245 Service Evaluation in Cardiology Inpatient Dental referrals at East Surrey Hospital

Mr Daniel Gillway
StR, East Surrey Hospital

1250 Improving plain film radiographic reporting of maxillofacial trauma using asynchronous learning methods

Mr Hassan-Ali Ismail
DCT2, Prince Charles Hospital, Wales

1255 How are we assessing the competence of Oral Surgery Trainees?

Dr Pav Chana
DCT3, Aintree University Hospital

1300 Examining the association of career stage with personality preferences – a survey of dental core trainees to consultants.

Dr Adesh Savla
Specialty Doctor, Eastman London

1305 Removal of an ectopic mandibular wisdom tooth using an endoscopically assisted sagittal split osteotomy approach
Dr Eugenie Ling
Salisbury District Hospital

1310 Supplementary Soft and/or Hard Tissue Procedures Around Dental Implants - a Systematic Review and Meta-Analysis
Dr Annika Therese Kroeger
Clinical Lecturer, Birmingham Dental Hospital

1315 DCT Essay winner TBC

1320 Sponsor Nobel Biocare's presentation

1330 Invited lecture session – Core CPD updates.

Chaired by Prof. Vas Sivarajasingam, Professor/Hon Consultant in Oral Surgery, Cardiff

1330 What's new and important in Dentomaxillofacial Radiology?

Dr Andy Carr,
Clinical Teaching Fellow, Newcastle

1430 Sedation in special circumstances.

Dr Rebecca Wassall,
Specialist and Lecturer in Special Care Dentistry,
Newcastle

1530 Medical emergencies in a pandemic: changes or the status quo?

Dr Kate Taylor,
Senior Lecturer, Hon Consultant Oral Surgeon, &
President-Elect ABAOMS

1630 Prize giving by President and President-Elect & close

Invited speaker biographies



Dr Andrew Carr is a Clinical Teaching Fellow and Lead for Lifelong Learning and Continuing Professional Development at the School of Dental Sciences, Newcastle University.

Andrew was appointed a Specialty Registrar and Associate Clinical Lecturer in Dental and Maxillofacial Radiology at Newcastle Dental Hospital in 2010. During this time, he gained extensive experience in dental and maxillofacial radiology, particularly of the salivary glands. His special interests include the efficacy and diagnostic utility of ultrasound in patients with Sjogren's Syndrome, together with applied anatomy and anomalies in relation to Cone Beam CT. He has extensive experience in undergraduate dental education, together with the postgraduate training of Foundation Dentists, Dental Core Trainees and Specialty Registrars in salivary imaging and radiographic reporting. He has lectured both nationally and internationally on the topic of dental imaging, and is a member of the working party on the 2020 edition of Guidance Notes for Dental Practitioners on the Safe Use of X-ray equipment. He has also served as a Medical Sector Committee Member for the Society of Radiological Protection.



Dr Ian Corbett is a Consultant in Oral Surgery with Newcastle upon Tyne Hospitals' NHS Foundation Trust and an Honorary Senior Lecturer at Newcastle University's School of Dental Sciences. Ian graduated from Newcastle University and King's College, University of London, and holds a PhD in pathology. He has over 20 years' experience in oral surgery. Ian is Convenor of Dental Examinations, past chair of the Specialty Advisory Board, and on Council for RCS Edinburgh, Chair of the Tricollegiate Specialty Membership Examinations Executive and member of the SAC for Oral Surgery.

He has a research interest and international recognition in the field of dental anaesthesia, having published extensively, lectured internationally, and was awarded a European Federation for the Advancement of Anaesthesia in Dentistry prize. He is past chair of the Dental Anaesthesiology Research Group and Council Member of IADR.

Ian provides an extensive oral surgery referral service, specialising in treating patients with complex oral surgery needs, the management of dentally anxious patients, and surgery for orthodontic patients and young adults, having developed a clinical referral network of Orthodontists in the North of England and a multidisciplinary service. He performs the majority of orthodontic surgery in the region, which also makes up a large part of his private practice.



Dr Helen Clark is a Clinical Teaching Fellow and Honorary Speciality Dentist in Oral Surgery at the University of Leeds School of Dentistry and an Associate in NHS General Dental Practice. Helen was appointed Chair of the ABAOMS Education Committee in 2017.

Helen has completed postgraduate education to achieve a university teaching accreditation and is a Fellow of the Higher Education Academy. She completed a diploma in sedation and has special interests in anxiety management, local anaesthesia and sedation. Helen leads teaching activities in these areas for undergraduates and postgraduates.



Professor Justin Durham is a Professor of Orofacial Pain and Head of the School of Dental Sciences at Newcastle University and an Honorary Consultant Oral Surgeon at Newcastle-Upon-Tyne's Hospitals' NHS Foundation Trust in the UK. He is also currently the President of Association of British Academic Oral and Maxillofacial Surgeons.

Justin was appointed Clinical Fellow/Hon SpR in Oral Surgery at Newcastle University in 2003. He obtained his PhD, "Ideologies and outcomes in Temporomandibular Disorders (TMD)", from Newcastle University in 2008. He subsequently completed his Oral Surgery specialist training and also became the first person in the UK to pass the American Board of Orofacial Pain. He held a prestigious NIHR Clinician Scientist award from 2012-2017, which funded his research into the care pathways in chronic orofacial pain and was promoted to a personal chair in 2017. In his clinical practice he has established and leads a multidisciplinary orofacial pain clinic that receives tertiary-level referrals from both dental and medical specialities in the North of England. He is also keenly interested in helping develop the next generation of clinical academics and as such is involved nationally with NIHR as the Associate Dean for Dental Integrated Academic Training.



Dr Charlotte Emanuel is a Senior Clinical Lecturer and Specialist in Oral Surgery at Cardiff University. She is the Cardiff representative on the Education group for Association of British Academic Oral and Maxillofacial surgeons. Charlotte returned to Cardiff in 2006 as a Clinical Research Fellow to complete a part-time PhD 'Molecular Characterisation of *Staphylococcus aureus* from Chronic Wounds'. She was awarded a Walport Clinical lectureship in 2011 to continue her antimicrobial resistance work with the Advanced Therapies Group whilst continuing to work clinically and developing teaching methods for Oral

Surgery. She completed a Diploma in Conscious Sedation in 2016 and gained her CCST in Oral Surgery in 2017. She completed her Postgraduate Certificate in University Teaching and Learning and was promoted to Senior Lecturer in Oral Surgery in 2020. She maintains her interests in wound healing and antimicrobial resistance and working with the School of Engineering to develop teaching aids for Oral Surgery. During her role as a clinical educator, she has developed a keen interest in the resilience and wellbeing skill development in undergraduate students. Charlotte was appointed as the Director of Assessment in the School of Dentistry overseeing all undergraduate and postgraduate taught programmes in September 2020.



Dr Rachel Green is a Specialist Oral Surgeon and Clinical Lecturer based at Newcastle University. She has a keen interest in dental education and is currently the Clinical Teaching Lead for Oral Surgery at Newcastle Dental School as well as the Training Programme Director for Oral Surgery specialty training in the North East of England. Having trained and worked in junior positions in Scotland she moved to Newcastle to take up a Clinical Fellow position where she undertook her PhD before progressing to specialty training in Oral Surgery. In her current role, she enjoys overseeing and developing the undergraduate course with a focus on Oral Surgery and assessment. She also

has a research interest in the undergraduate experience of the educational process and is currently supervising a PhD student whose project focuses on the emotional and technical challenges of undertaking oral surgery skills based training.



Dr Sabine Jurge obtained her dental degree (DDS *cum Laude*) from the Riga Stradins University in Latvia and her medical degree from the University of London. She completed her MSc in Oral Medicine at the Eastman Dental Hospital, University College London. She has briefly worked in general dental practice and had a number of junior dental and medical jobs in hospital setting. She completed her specialty training in Oral Medicine at the University College London and currently works as Consultant in Oral Medicine at the Sheffield Teaching Hospitals NHS Foundation Trust and as Honorary Senior Clinical Lecturer at the University of Sheffield. She has obtained MFDS from the Royal College of Surgeons of England and FDS(OM) from the Royal College of Physicians and Surgeons of Glasgow. She is a fellow of the British and Irish Society for Oral Medicine, a member of European Association of Oral Medicine and a fellow of the Higher Education Academy. She has been involved in World Workshop of Oral Medicine.



Dr Ali Khurram is a Senior Clinical Lecturer and Consultant Pathologist at the University of Sheffield, UK. His postdoctoral training was funded by the National Institute for Health Research (NIHR), UK as a part of which he also trained as a Diagnostic Oral and Maxillofacial Pathologist. Following the successful completion of FRCPath in 2016, he was appointed as a Senior Clinical Lecturer and Consultant Pathologist at the School of Clinical Dentistry, University of Sheffield.

He has a number of local, regional and national Clinical and Educational roles including:

- Clinical lead for Sheffield Diagnostic Oral and Maxillofacial Pathology Service
- Lead for undergraduate BDS Pathology teaching
- Educational supervision of core and specialist oral pathology trainees.
- Key member of the British Society for Oral and Maxillofacial Pathology (BSOMP) council including roles of Secretary and Webmaster.
- Digital Advisor and Webmaster for the Pathological Society of Great Britain & Ireland.

He has previously held the roles of Audit Lead for the hospital as well as Molecular Pathology Lead for South Yorkshire. He is actively involved in research and is particularly interested in salivary gland pathobiology, and role of the tumour microenvironment in oral cancer metastasis and bone invasion. Over the last few years, he has been actively involved in investigating the use of Machine Learning and Artificial Intelligence, exploring their role in diagnosis and prediction of prognosis. He has a grant portfolio of over £1 million and is an IT and multimedia enthusiast as well as an active social media user.

You can find out more about him using the links below:

[Twitter](#)

[University site](#)

[Linkedin](#)



Dr Francis Nohl is a Consultant in Restorative Dentistry and Honorary Clinical Senior Lecturer in Restorative Dentistry at Newcastle Dental Hospital and the School of Dental Sciences, Newcastle University. He trained in medicine at St. Georges Hospital, followed by dentistry at University College, London University, before undertaking postgraduate training at the Eastman Dental Institute in London, and Newcastle University. He took up his Consultant post in 2000. Francis carries out both surgical and prosthodontic aspects of implant dentistry, and has led the implant team in Newcastle responsible for service delivery and specialist clinical training. He is founder and Degree Programme Director of the Diploma in Clinical Implant Dentistry at Newcastle University.



Professor Tara Renton is a Professor and Consultant in Oral Surgery. She completed her dentistry at Guys (1984), Oral and Maxillofacial surgical training in Melbourne (1991), and undertook a PhD in Trigeminal Nerve injury at KCL (1999-2003). Following this she has undertaken a number of roles spanning the full breadth of clinical academia including: educating undergraduate dental students in modern oral surgical and local anaesthetic techniques; supervising 8 PhDs to completion; globally collaborating on orofacial pain research with substantial UKRI and NIHR funding and publishing over 200 papers; undertaking

national and local leadership roles including establishing an orofacial pain service at Kings' and two patient focussed websites for orofacial pain and trigeminal nerve injuries, chairing the national patient safety panel for dentistry and the mandibular third molar guidance for RCS England, and being immediate past-President of the British Association of Oral Surgeons.



Dr James Spencer qualified from the University of Bristol and undertook his orthodontic specialty training at the Eastman Dental Institute. He continued his senior registrar training at the Eastman Dental Institute and Kingston Hospital and was appointed consultant orthodontist at Pinderfields Hospital and Leeds Dental Institute in 1999. He has lectured widely both nationally and internationally. In the past he has been Chair of the Consultant Orthodontists Group and the British Orthodontic Conference.

He is currently Postgraduate Dental Dean for HEE Yorkshire and the Humber and is also lead dean for Dental Specialty Training.



Dr Kate Taylor is Senior Lecturer/Honorary Consultant with at the Liverpool University Dental Hospital (LUDH)/Liverpool Foundations Trust NHS Hospitals. She has a number of roles:

- President Elect for ABAOMS
- Elected council member for BAOS
- Elected council member for DSTG
- Secretary for ADA and elected council member
- Academic Lead for Oral Diseases (LUDH)
- Year 5 BDS Lead (LUDH)
- Clinical Lead for Oral Diagnosis (acute dental care; LUDH)

She completed a basic science PhD with the University of Leeds but is now focussed on educational research and increasing awareness of conscious sedation in dentistry. She is part of a team at Liverpool that has recently been awarded a grant by DSTG to produce educational materials for conscious sedation for undergraduates. She has been engaged in medical emergencies training for a number of years and is passionate about medical emergency training for the whole team and in encouraging colleagues to choose oral surgery for a career.



Dr Becky Wassall is a Clinical Lecturer at Newcastle University and Honorary Specialist in Special Care Dentistry at Newcastle Hospital Trust. Qualified in 2000, she has worked in NHS hospital, GP and community dentistry and in 2011, she completed a PhD.

As a Clinical Lecturer at Newcastle University she was awarded an NIHR Transitional Research Fellowship to undertake postdoctoral research into the organisation and delivery of person-centred dental services for older people living and dying in care homes.

Her academic work seeks to celebrate and promote the humanistic aspects of dental care for older people with significant health and care needs while also embracing the opportunities of technology to improve oral health and wellbeing. She has wide experience in a variety of methodologies involved in health services research and is currently exploring the use of co-design approaches in implementation research.

As an enthusiastic and committed teacher she is always willing to share skills, knowledge and practise with more junior colleagues. Under her supervision, two early career researchers have now secured NIHR fellowships within the field of Special Care Dentistry. More recently, she was recognised by the Vice-Chancellor of Newcastle University, for her efforts in supporting student's pastoral and wellbeing needs in addition to playing a key role in the School's transition back to aerosol generating student clinics.



Professor Julian M Yates qualified from the University of Glasgow in 1996 and is now a Professor in Oral & Maxillofacial Surgery at the University of Manchester. Professor Yates is a clinical teacher in all aspects of Oral Surgery (Core and Extended Competencies) including implant dentistry. He is extensively involved in UG and PG teaching including the very popular MSc courses in Oral Surgery. He has extensive experience in all aspects of oral surgery and implantology – routine and complex dentoalveolar surgery, intra and extra oral, including soft and hard tissue reconstruction/augmentation, single teeth to whole mouth rehabilitation and treatment of the atrophic jaws using zygomatic implants and the “All-on-4” technique. Furthermore, he works within an experienced multidisciplinary team in order to explore all avenues of treatment available and provide the highest standard of care.

Abstracts of open papers

Ordered alphabetically by presenting author's surname

150. Aerosols and droplets in dentistry— from research to practice

Dr James Allison Clinical Fellow OS Newcastle School of Dental Sciences

Introduction: The COVID-19 pandemic has significantly disrupted healthcare services, partly due to concern over SARS-CoV-2 transmission in bioaerosols during healthcare procedures. Dentistry has been particularly affected as SARS-CoV-2 is present in saliva and could be carried in dental instrument aerosols. UK dental services closed in March 2020 and 19 million fewer treatments than usual were performed to November 2020, causing untreated pain and infection.

Aim: The work aimed to address the poor evidence base on bioaerosols in dentistry.

Objectives: The objective was to quantify the dispersion of aerosols from dental procedures and examine the effect of mitigation factors.

Method: Experiments were conducted in clinical settings using a dental mannequin. Fluorescein was used as a tracer in the irrigation reservoirs of various dental instruments, and in separate experiments, tracer was infused into the mouth of the mannequin to model saliva. Filter papers were placed onto a standardised rig surrounding the mannequin to collect tracer, and fluorescein was quantified spectrofluorometrically using a plate reader after eluting from filter papers. “Fallow time” and the effects of suction were measured.

Results: High-speed air-turbine handpieces and ultrasonic scalers produce droplets and aerosol which may travel up to 6 metres from the source in unmitigated conditions. Saliva may be carried within these droplets and aerosols; however, this is likely to be highly diluted (at least 60-70,000 times). Suction has a highly beneficial effect, and reduces contamination by 50-80%, with greatest effects at sites distant to the source. Settled contamination is likely to fall within the first 10 minutes post procedure in settings with moderate air-exchange rates. Findings influenced national guidance.

Conclusion: Dental instruments produce droplets and aerosols which vary in quantity by instrument type but may reach distant sites. These aerosols may contain saliva and therefore pathogens, but this is likely to be highly diluted. Suction has a significant beneficial effect.

Conflict of interests: None

25. Going paperless during COVID-Tracking hospital staff morale during the transition to electronic health records

Dr Gabriele Baniulyteave ACF OS Royal Devon & Exeter Hospital

Norma Rogerson

Introduction: In October 2020, Royal Devon & Exeter NHS trust underwent the transition from paper notes to a fully electronic health records (EHR) system representing unprecedented organisational change. Organisational change is an important part of development and growth. When it's managed well, effectively communicated and the impact on employees considered, it will allow the organisation to progress and adapt efficiently. However, if managed poorly, the wellbeing of the employees can be affected, reducing their productivity whilst having a negative impact on morale.

Aim: The aim of this project is to monitor the impact of transition from paper notes to EHR on the staff of the Oral and Maxillofacial department

Objectives: To monitor staff morale during this organisational change; to highlight any issues arising that may impact on the smooth transition; to encourage feedback.

Method: This project received local R&D approval. A questionnaire was distributed to all members of the maxillofacial outpatients' department on a regular basis. Kubler-Ross change curve categories were used measuring reactions of staff based on seven categories– shock, denial, frustration, depression, experimenting, feeling more positive, completely happy. Qualitative data was collected using free-text questions.

Results: The responses highlight an ongoing divide in the morale and acceptance of the staff with the new system. There is a noticeable divergence in responses week on week according to job role, and nursing staff appear to be less happy with the transition. The study emphasised the position that not all members are completely happy with the EHR system but only a small minority would want to return to paper notes.

Conclusion: Going paperless involves carefully designed organisational change. However, it is impossible to predict all potential issues and staff adapt to change at different rates. Therefore, regular monitoring of morale and staff opinion allows for smoother transition in a large-scale organisational change.

Conflict of interests: none

155. Surgical Management of Parotid Sialolithiasis Associated with Sjögren's Syndrome

Dr Darcy Belcher DCT Charles Clifford Dental Hospital, Sheffield

Clare Steel, Basmal Ria

Introduction: 72 year old female referred regarding the management of right parotid sialolithiasis. 2 year history of pain and swelling right preauricular region, initially periprandial but now persistent. MH: Sjögren's Syndrome (Bioextra, HiLo Tears), Crohn's (Prednisolone), Osteopenia (Zolendronate), DVT (Rivaroxaban), DLE (Tacrolimus), Autoimmune Hepatitis with Primary Biliary Cirrhosis (Ursodeoxycholic acid) Penicillin Allergy

Objectives: Poster focuses on patient presentation, medical history, methods of managing sialolith, link between autoimmune disease and sialolith

Method: Outlines removal of 18mm parotid sialolith via surgical transoral approach

Results: Successful management of sialolith, purulent and infected on removal - Antibiotics given which resulted in allergic reaction. Patient allergy to penicillin, metronidazole contraindicated, clindamycin also contraindicated due to age/care home and patient previously tolerated clarithromycin, but cased a rash part way through antibiotic course.

Conclusion: In future if antibiotics required in this patient, consultation with microbiology applicable. Ultrasonography is the gold standard for imaging sialoliths. (Capaccio et al. 2007) and has increasing use in the diagnosis of Sjögren's syndrome (Price et al. 2017) Capaccio et al. (2007) outlines many different treatment modalities for sialolithiasis. Here, the evidence indicated a transoral approach without endoscopy due to the location of the sialolith (Foletti et al. 2018) Autoimmune hepatitis and primary biliary cirrhosis are both associated with Sjögren's Syndrome. Lymphoproliferative disorders (MALT Lymphoma) also have increased risk with Sjögren's Syndrome (Price et al. 2017) Continued regular review by GP and GDP essential in prevention, early detection of recurrence and management of medical conditions to give long term positive outcomes

Conflict of interests: None.

112. Removal of an ectopic mandibular wisdom tooth using an endoscopically assisted sagittal split osteotomy approach

Dr Eugenie Ling, Salisbury District Hospital

Julie Bell, Eugenie Ling*, Ian Downie

Introduction: Surgical removal of deeply impacted lower wisdom teeth is associated with major complications, such as pathological mandibular fracture, lingual and inferior dental nerve (IDN) injury. We present the case of a 52-year-old man, who has had recurrent infection and persistent pain from a vertical impacted lower right wisdom tooth (LR8). Following investigation with cone beam computed tomography (CBCT), revealing the tooth at the lower border of mandible and the IDN located lingual and compressed the apical third of the tooth. Hence, this patient has significantly high risk with IDN damage and mandibular fracture following the tooth removal. Alternative surgical techniques were considered. Sagittal split osteotomy (SSO) was proposed, resulting in the minimum postoperative morbidity. The tooth was removed successfully using SSO technique to gain the access and using an endoscope to aid visualisation.

Aim: To evaluate SSO approach in removing deeply impacted mandibular wisdom teeth in close proximity to the IDN and the use of endoscope to aid visualisation when extracting ectopic teeth. Objectives: Review related literature. Indications of tooth removal with SSO approach

Method: Endoscopic assisted partial right SSO was performed, ensuring cuts made under direct vision and also giving access to deliver the LR8. A plate was plated across the vertical buccal cut to fix the buccal cortex.

Results: The extraction was completed without complications; no loss or altered sensation to IDN or lingual nerve distribution, minimal bone loss, no change to occlusion were recorded. No delayed postoperative complications were experienced.

Conclusion: Using the endoscope allowed good visualisation whilst maintaining the integrity of the IDN at point entry to inferior dental foramen. The cut at mandibular inferior border could be checked in order to reduce likelihood of unfavourable split, decreasing the risk of change in occlusion. This technique allowed minimal bone removal and reduced healing time in comparison to conventional surgical extraction.

Conflict of interests: None

154. Papillary Renal Cell Carcinoma

Ms Angela Boscarino DCT1 Arrowe Park Hospital

Simon Rogers

Introduction: This is a diagnosis of Papillary Renal Cell Carcinoma in a 19-year-old patient which manifested as ipsilateral numbness of lower lip and swelling in the region of masseter insertion. Despite widespread metastatic disease at presentation, diagnosis was delayed with false reassurance from a normal brain scan and the assumption that the symptoms were due to pericoronitis relating to the LR8.

Aim: To know when to refer patients urgently on the two week cancer pathway

Objectives: To discuss the signs and symptoms of malignancy in the mandible

Method: The patient had blood tests, OPG, CT head, MRI, liver and supraclavicular node biopsy.

Results: The patient was diagnosed with Type 2 papillary renal cell carcinoma. Imaging showed a 7cm mass in the right kidney alongside numerous bilobar liver, lytic bone, mediastinal lymph node and bilateral adrenal metastases.

Conclusion: This is a rare presentation of a female teenage patient with primary type 2 Papillary Renal Cell Carcinoma with mandibular and other widespread metastases (renal, adrenal, bony, liver). The patient presented with symptoms that were unusual for pericoronitis. This case emphasises the importance of taking a thorough history and clinical examination. If findings do not lead to a problem with a clear odontogenic origin, then alternative diagnoses must be contemplated. A differential diagnosis of malignancy should be considered for unexplained symptoms such as paraesthesia or extra oral swellings. This is irrespective of the patient's age. A referral should be made to secondary care on an urgent basis via the two-week cancer pathway. A specialist opinion should be sought so that appropriate special investigations can be undertaken.

Conflict of interests: none

127. The effect of the COVID-19 pandemic (first and second lockdown) on Maxillofacial Trauma at the Irish National Maxillofacial Unit.

Dr. Harriet Byrne Senior House Officer, St. James Hospital, Dublin, Ireland

L Costello, K Ekanayake, C Murphy, G Kearns

Introduction: The COVID-19 pandemic caused unprecedented effects on health, social and economic aspects of society worldwide. The delivery of health care and patients presenting with non COVID-19 related medical conditions has been affected.

Aim: This study aims to highlight the effects of the COVID-19 pandemic on patients presenting with maxillofacial trauma (MT).

Objectives: The objectives include an assessment of maxillofacial trauma patients; the aetiology, fracture types and management provided.

Method: This is a retrospective study of patients presenting with (MT) over 8.5 months. Group A included patients in the Covid-19 lockdowns (CLD) in Ireland. Group B represented patients in an identical non-covid timeframe. The level of lockdown was noted throughout. Information collected included patient demographics, aetiology, fracture type and treatment provided.

Results: The study included 1126 patients; Group A (N=459) and Group B (N=667). There was a 31% reduction in maxillofacial trauma during the Covid-19 lockdowns. Gender and age were similar: Group A (70% Male, 30% Female) ,Group B (71% male , 29% Female) and Group A 43 (7-80 years), Group B – 44 (6-94 years). Fracture aetiology indicated an increase in bicycle injuries from 3% to 12% during the CLD. There was also an increase in falls (37% to 42%) during the CLD, in particular in the female cohort(59% to 74%) . Assaults also rose while work related, sports related and road traffic related injuries decreased. There was an increase in zygomatic and orbital fractures in Group A. The admission rate remained similar; 26% in Group A and 24% in Group B.

Conclusion: Covid-19 has affected multiple aspects of healthcare services. This study highlights a reduction in the number of patients presenting with maxillofacial trauma.

Conflict of interests: None

100. How are we assessing the competence of Oral Surgery Trainees?

Dr Pav Chana DCT3 Aintree University Hospital

Introduction: Assessing the competence of trainees is a fundamental part of surgical training, allows the public to maintain confidence in the profession and is a requirement of governing bodies. Despite its importance, how to assess competence remains highly debated in the literature.

Aim: Provide an overview on the methods used to assess competence of Oral Surgery trainees and their usefulness. Highlight gaps in the literature for further research and need for standardisation of assessment in Oral Surgery.

Objectives: To systematically review the literature describing the methods used to assess the competence of Oral Surgery trainees and determine their usefulness. To the author's knowledge, this is the first review of this kind.

Method: Electronic databases were searched (Medline, Embase, PyschiINFO and EBSCO) along with the reference lists of relevant papers. Papers were reviewed by one reviewer and data was extracted from those that met the inclusion criteria. The usefulness, strengths and limitations of each assessment method was determined -along with an appraisal of the paper.

Results: Of the 507 studies identified from the initial search, 10 papers assessing competency of undergraduate and postgraduate trainees were included in the final review. Most assessments happened in simulated environments as opposed to in the workplace. Global rating and objective checklist scales were compared; although both were shown to have good inter-rater reliability, the global rating scale was preferred in the papers included. Self-assessment was not considered valuable by trainees and assessment by seniors was preferred to peers. Postgraduate trainees thought peer assessment had benefits, unlike undergraduate trainees. Logbooks and portfolios were also methods highlighted, papers included found no relationship between the number of extractions completed and competence in exodontia.

Conclusion: This review summarises and compares the methods used to assess the competence of trainees. It highlights that the evidence is limited and mainly focuses on undergraduate trainees. Further research exploring assessment methods more robustly is needed; this along with the opinion of trainees and trainers may be used to develop a universal tool to help standardise assessment across institutions.

Conflict of interests: Nil

88. The use of KLS martin fabricated custom guide for scapula free flap in reconstruction of mandible following squamous cell carcinoma resection

Dr Shima Chundoo DCT3 Birmingham Dental Hospital

Suraj Thomas

Introduction: Head and neck cancer can leave patients with significant defects requiring major reconstruction, often a free flap is the preferred treatment to ensure functional and aesthetic resolution. However, the scapula free flap remains a relatively underused flap choice. This article examines the novel use of custom guide for a scapula free flap in mandibular reconstruction following resection.

Aim: We aim to present a novel case of custom guide use for a scapula free flap in mandibular reconstruction. There is currently no available literature on this custom approach to a scapula free flap.

Objectives: Literature review of custom guide use in mandibular reconstruction. Case presentation including preoperative planning, collaboration with technicians and surgical management for mandibular reconstruction using a scapula free flap with a custom guide approach.

Method: A case file was created involving consultant surgeon, KLS advisor and technical team based in Belgium. A CT scan of the mandible was sent electronically to render a three dimensional models and the fabrication of custom cutting guides for resection of mandible as well as scapula graft harvest and customised plate for fixation.

Results: The scapula free flap was successfully placed using custom guides. In this situation, the use of a custom guide enabled easier harvest, manipulation and handling of the scapula free flap into the defect.

Conclusion: The use of a custom guide for a scapula free flap is a pioneering advancement in head and neck surgery. The use of new technology and computer generated guides represents considerable shift forwards into improving precision in complex surgical procedures and reducing intraoperative time. In conjunction with KLS martin, surgeons can use a individualised custom guide and indeed this can provide an easier means to handle and manipulate one of largest free flaps in surgery, the scapula free flap.

Conflict of interests: Nil

76. An unusual presentation of a Carotid Pseudoaneurysm

Dr Charlotte Frazer Cox DCT Glan Clwyd Hospital

TP Cole, A Kerai, H Jones

Introduction: A carotid pseudoaneurysm is a known complication of endarterectomy surgery that can occur in 0.3-0.6% of cases. A 70-year old lady presented with a four-month history of a swelling in the left submandibular triangle. An MRI scan revealed a possible branchial cyst, and a Duplex Doppler ultrasound of the left carotid artery revealed no flow within the lesion and normal flow of the carotids. A fine needle aspiration biopsy showed inflammatory changes only. The working diagnosis was a branchial cyst and it was planned for excision. The patient presented to A&E 3 months later complaining of bleeding and pain from the left neck and odynophagia. An urgent Duplex Doppler of the carotids showed a 3x3x4cm pseudoaneurysm arising from the medial border of the left common carotid, at the site of the previous endarterectomy. The patient was admitted for urgent treatment and transferred to a tertiary vascular centre for radiologically guided stent repair of her carotid artery.

Aim: To discuss a rare but life-threatening complication of endarterectomy surgery and the importance of utilising multiple imaging modalities to confirm the diagnosis.

Objectives: Present a case example of carotid pseudoaneurysm following endarterectomy surgery and discuss appropriate imaging modalities for diagnosis.

Method: The inpatient notes were accessed with patient consent and a literature search was conducted.

Results: Duplex ultrasound is a non-invasive assessment and has a sensitivity of 92% for identifying carotid artery injuries. MRI angiography has a sensitivity of 95% and specificity of 99%. MRI alone results in 84% and 99% respectively.

Conclusion: This case report highlights the importance of history taking and surgeons should have a high level of suspicion of a pseudoaneurysm in those with previous endarterectomy surgery.

Conflict of interests: We have no conflicts of interest to declare.

12. Evaluating Salivary Biomarkers for Head and Neck Squamous Cell Carcinoma

Dr Manas Dave ACF Oral Pathology Manchester

Introduction: Oral squamous cell carcinoma (OSCC) accounts for over 95% of all head and neck malignancies and despite advancements in imaging, cancer therapy and surgery, the 5-year survival rate has remained at 50% globally. Molecular signatures produced by OSCC cells have the potential to facilitate early detection through non-invasive saliva samples.

Aim: This systematic review aimed to identify all OSCC salivary biomarkers at all omic levels and report the most commonly found significant biomarkers. Additional aims including determining areas for future research where there may be a high likelihood of clinical translation and to report biomarker cost-effectiveness and public acceptance.

Objectives: A structured systematic review was undertaken to identify the relevant literature. Data were extracted based on previous reviews and quality assessment undertaken of included studies. Method: An electronic search of keywords was conducted in Web of Science, PubMed/Medline and Embase from January 2000 to January 2020. Additionally the grey literature was searched. Only primary research studies in human samples were included. Quality assessment was undertaken through the National Institutes of Health assessment tool.

Results: 347 studies were initially identified and following duplicate removal and application of the inclusion/exclusion criteria, 76 studies were included in this review. All studies were cross-sectional, observational or prospective cohort with 61.8% of studies deemed of good quality. 210 biomarkers were investigated in total pooling 6833 patients. 202 biomarkers were significant in discriminating OSCC with the most common IL-8, IL-6, S100P and HP. Proteomic assessments were the most common (89.5%), followed by transcriptomics (7.9%) and epigenome experiments and metabolomics (both 1.3%). No studies reported on any biomarker cost effectiveness or public acceptance.

Conclusion: This review determined that signature protein expression profiles of OSCC in saliva samples are unique and have future biomarker potential. A number of recommendations are made for future studies.

Conflict of interests: None declared.

61. Mandibular Distraction Osteogenesis (MDO): a role in the management of paediatric airway obstruction

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V Le, Farrell K, C Murphy, G Kearns

Introduction: Distraction osteogenesis (DO) a process of gradual bone elongation has recognised indications in facial reconstruction. This report identifies a role for mandibular DO (MDO) in paediatric patients with airway obstruction.

Aim: To demonstrate the role of MDO in management of paediatric airway obstruction.

Objectives: To identify a group of patients who underwent MDO surgery. To compare the degree of advancement with the initial presentation. To discuss the complications encountered. To evaluate the protocol used.

Method: This retrospective study reports seven paediatric patients undergoing MDO treating airway obstruction. The MDO protocol, degree of mandibular advancement outcomes for airway management and post-operative complications was assessed.

Results: The study population included seven patients (M 6, F 1), with severe mandibular retrognathism (MR) based on clinical and radiographic assessment. The diagnoses were as follows: Treacher Collins Syndrome, Klinefelter Syndrome, Pierre Robin Syndrome, Marden Walker Syndrome, Subglottic Stenosis, Sleep Apnoea (OSA). Four patients were tracheostomy and three CPAP dependant. Mean age at distraction surgery was 72 (36-125) months. All patients underwent MDO under general anaesthesia using internal distractors via a submandibular approach with a bilateral mandibular angle osteotomy, a 5-day latency period, and bilateral MDO at 1 mm per day for 20 days. The activation arms were removed at distraction completion. The distractors were removed under general anaesthesia three months following the completion of distraction. The outcomes were as follows: Tracheostomy removed in 3 patients, OSA improved in 3 patients with CPAP discontinued. One patient with subglottic stenosis and autism failed decannulation, the same patient had a fracture of a mandibular distractor and required an iliac crest bone graft and placement of a bone plate. One patient has transient marginal mandibular branch VII weakness.

Conclusion: Airway obstruction secondary to MR can occur with displacement of the tongue into the pharyngeal airway. If severe, tracheostomy or the use of CPAP is necessary. This may result in delayed social and educational development, increased morbidity and family demands. MDO increases the upper airway volume and has a role in the management of paediatric patients with airway obstruction.

Conflict of interests: The authors declare no potential conflicts of interest with respect to the authorship and/ or publication of this presentation.

147. Service Evaluation in Cardiology Inpatient Dental referrals at East Surrey Hospital

Mr Daniel Gillway StR OS East Surrey Hospital

Naomi Rahman, Shrina Nathwani

Introduction: Patients referred for dental assessment prior to cardiac surgery or due to infective endocarditis with a potential dental cause require careful management. Treatment may be required including dental extractions with antibiotic cover to be completed prior to cardiac surgery.

Aim: 1. Service evaluation of current dental care pathways for cardiology patients 2. Assessment of clinical record keeping

Objectives: 1. Streamlined referral pathway to enable timely treatment prior to surgery date 2. Improved record keeping 3. Improved interdepartmental relationships

Method: All cardiology inpatient referrals and outcomes recorded prospectively over a 2 year period, Analysis of referrals including cardiac diagnosis, dental treatment required, antibiotic cover required and record keeping acceptable

Results: 60 Referrals were identified, 12 patients had a diagnosis of infective endocarditis with a variety of causative bacteria, Cardiac diagnosis included mitral (n=15) and aortic valve (n=16) pathology. Dental Treatment was completed in 26 referrals and request for antibiotic cover varied, 7 patients were transferred for surgery prior to dental treatment. A cardiac referral proforma was implemented and patient information leaflet, local teaching sessions organised to key referrers (cardiac team and physicians associates). Prospective review of updated referral pathway shows improved record keeping and communication between departments.

Conclusion: Referrals from cardiology team often relate to complex and acutely ill patients, it is important the referral pathway for dental treatment is clear and communication between specialties is optimum in order to provide timely treatment

Conflict of interests: nil

3. How the COVID-19 experience affected the referral base, presentation, treatment and immediate outcome of oral cancer in an East Yorkshire regional OMFS Head and Neck unit. An epidemiological review of 2019 vs 2020.

Dr Lorna Gladwin DCT1 Hull University

Caoimhin O'Higgins, Stephen Crank, Kelvin Mizen, Jerome Philip

Introduction: The COVID-19 pandemic has drastically altered healthcare provision in primary and secondary care settings in the UK due to significant resources being prioritised for coronavirus care. Services have been affected at all levels of the referral ladder due to reductions and in some cases complete cancellation of face to face care. At Hull University Teaching Hospitals (HUTH) throughout the pandemic the OMFS unit observed increasing patients presenting with later stage disease, therefore requiring operations and reconstructions of increased morbidity.

Aim: To evaluate the effects of COVID-19 on H&N oral cancer.

Objectives: Provide an overview of all oral cancer patients from the same timeframes over two years and evaluate the presentations, referrals and outcomes.

Method: This review collated data of all OMFS patients with oral squamous cell carcinomas requiring surgical intervention between the 23rd March and the 31st December 2019 compared with the same time period in 2020. Data was collected through the HUTH database, cross referenced with the Somerset MDT register and NLAG trust database. A significant amount of data was collated including age, sex, time from referrals to both 1st appointment and treatment, TNM staging, types of neck dissection and reconstruction, length of stay in hospital and any adjunctive treatment required.

Results: On comparison of the data sets, the 2020 cohort of patients had an overall later TNM staging result, with an increasing requirement for radical neck dissections and postoperative adjunctive treatment such as chemo/radiotherapy. The study found that, on average, patients experienced a shorter waiting time from referral to initial assessment and commencement of treatment than 2019.

Conclusion: Patients with more advanced disease were seen during the period of the pandemic, likely due to delayed presentation and reduced referral services.

Conflict of interests: Nil

84. Summary of European guidelines on infection control and prevention during COVID-19 pandemic

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Kathrin Becker, Katarzyna Gurzawska-Comis*, Giulia Brunello, Björn Klinge

Introduction: The current COVID-19 pandemic highlighted the need for a review of guidelines on infection control and prevention to ensure safe delivery of dental care. However, it is not clear to what extent the rapidly published European guidelines reflect the current evidence and thus provide homogeneous recommendations.

Aim: The primary aim of this review was to collect, summarise and assess the homogeneity of the most recent versions of national guidelines from European countries for the management of dental care during COVID-19 pandemic. The secondary aim was to compare the national guidelines with available scientific evidence and recommendations published by the European Centre for Disease Prevention and Control (ECDC), the World Health Organization (WHO) and United States (US).

Method: Guidelines from all European Union countries, Scotland, Switzerland and United Kingdom were retrieved. Information on triage, mouth rinse, personal protective equipment (PPE) for aerosol free/ generating procedures (non-AGP/AGP) and treatment of potentially infectious patients were summarised, and compared with recommendations from international organizations (WHO, ECDC) and the United States.

Results: All included countries (30/30) published COVID-19 guidelines in 2020. All countries recommended triage and to postpone non-urgent treatment of potentially infectious patients. Hydrogen peroxide (1-1.5%) was the most frequently recommended antiseptic mouth rinse to reduce viral load (24/30). PPE for non-AGP treatments included mainly surgical masks (21/30) or FFP2/FFP3/N95 masks (16/30), whereas FFP2/FFP3 masks (25/30) and face shields (24/30) were recommended for AGP by the vast majority of guidelines. For high-risk/COVID positive patients, most countries recommended maximum protection, and treatment in specialised dental clinics (22/30).

Conclusion: There was general agreement among recommendations for triage, mouth rinse, and PPE during AGP and treatment of potentially infectious patients. In contrast, recommendations on PPE for non-AGP treatment varied considerably among the European countries possibly due to limited scientific evidence regarding transmission risk during non-AGP treatments.

Conflict of interests: no

33. The role of teleclinics in Oral Surgery during the COVID-19 pandemic

Dr Afnan Ibraheim Specialty Doctor, Eastman Dental Hospital

Arwa Sanalla, Josiah Eyeson

Introduction: Teledentistry is being increasingly utilised in response the pandemic as a way to overcome the challenges that come with social distancing and shielding. Prior to the pandemic, virtual dentistry was rarely implemented due to the reliance on visual and tactile examination. It is therefore worth exploring the usefulness of teledentistry.

Aim: To determine patient experience of teleclinics conducted during the COVID-19 pandemic - To explore the clinical effectiveness of teleclinics in this context

Objectives: To evaluate discharge outcomes following teleclinic consults - To establish if teleclinics are sufficient to complete the consultation - To evaluate patient experience and satisfaction with teleclinics

Method: 103 follow-up patients who had a telephone review during the pandemic were included. A five-item, five-point Likert-scale telephone survey was used to gauge patient experience. Retrospective analysis of these patients' electronic records established outcomes of the telephone review.

Results: In terms of patient experience of their telephone review, majority of patients agreed or strongly agreed that their telephone review was useful, it addressed their concerns, it was easy to access, and they felt able to discuss confidential information over the phone. 62% preferred telephone reviews than face-to-face reviews. In terms of outcomes, 62% of patients were discharged after their telephone review. Most of the patients were for a post-operative review or finalisation of their treatment plan.

Conclusion: Patients had a positive experience of telephone clinics for the provision of their routine follow-up care. In addition, teledentistry is shown to be a means of increasing capacity for face-to-face reviews, in turn reducing waiting times and further improving patient experience. Appropriate case selection for teledentistry is essential. Teledentistry is an efficient and effective tool for patient care when used suitably and can have an important role in routine patient care beyond the pandemic.

Conflict of interests: No conflicts of interest for this project

18. Improving plain film radiographic reporting of maxillofacial trauma using asynchronous learning methods

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Nicola Allison, Richard Evans

Introduction: Social distancing guidance during the COVID-19 pandemic has created challenges in educating dental core trainees (DCTs). With a substantial portion of teaching now being conducted virtually, it is important to understand how learning can be achieved using alternative methods. For example, asynchronous learning is learning that does not occur in real-time. It allows trainees to learn at their own pace and content can be accessed at any time. A quality improvement project was conducted to assess the usefulness of asynchronous learning in teaching basic aspects of maxillofacial trauma.

Objective: To improve dental core trainees' interpretation of plain film radiographs in maxillofacial trauma.

Method: An online assessment was sent to all DCTs working in the oral and maxillofacial surgery department at Prince Charles Hospital. Core knowledge was tested such as detecting mandible and zygomatic bone fractures on plain film radiographs as well as recognising the clinical signs of common fractures of the facial bones. Trainees were then asked to complete an asynchronous online learning module. Finally, trainees completed the initial assessment for a second time. Results of the assessment before and after completion of the learning module were compared.

Results: Preliminary results show an increase in assessment scores after completing the online learning module. The mean initial assessment score was 62%, which increased to 79% after completing the learning module. All participants believed their ability to detect fractures on plain film radiographs had improved following completion of the course.

Conclusion: Asynchronous learning has a role educating DCTs. Advantages include flexibility in learning, accessing content at any time, and working at one's own pace. Consideration must be given to its limitations such as lack of teacher-student interaction and provision of immediate feedback. Blended learning can be used to overcome these deficiencies, where online learning is balanced with traditional in-person teaching.

Conflict of interests: None

Isolated Langerhans cell histiocytosis of the oral cavity in a 25-year-old female: A rare case report with review of the literature

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C.Oikonomou, J. Cymerman

Introduction: Langerhans cell histiocytosis (LCH), formerly known as histiocytosis X, is a rare neoplasm with diverse clinical manifestations, which can range from single lesions to severe multisystem involvement. Approximately 10% of LCH cases affect the oral cavity with the posterior mandible being the site most frequently involved, and isolated oral mucosal lesions being extremely rare. Treatment modalities vary depending on the severity of the disease.

Aim: To discuss the very rare presentation and the management of isolated oral lesions in Langerhans cell histiocytosis in a 25-year-old female with a review of the literature.

Objectives: To highlight the presentation and management of fertile adult patients who are diagnosed with isolated LCH of the oral cavity and the approaches available to the oral and maxillofacial surgeon for such lesions.

Method: We report the case of a 25-year-old female who presented with an ulcerated soft tissue lesion in the oral cavity which was diagnosed as isolated LCH following an intra-oral biopsy. A review of the current literature was carried out using Embase, Pubmed and Medline to highlight the current presentation and treatment options used in such patients.

Results: We treated this patient with surgical excision followed by injection of corticosteroid in the healing surgical bed after an appropriate period. Long term follow-up with both the oral and maxillofacial surgery department and the lymphoma specialists will be required to check for local recurrence and/or new systemic involvement.

Conclusion: Isolated single system lesions are currently thought to be best managed with local surgical excision and intra-lesion corticosteroids to avoid the side effects of systemic chemotherapy and radiotherapy, especially in fertile adults. As there is a significant risk of local and systemic recurrence, long term follow-up with lymphoma specialists and oral & maxillofacial surgery is required.

Conflict of interests: No conflicts of interest to declare

109. Reticulohistiocytoma - a rare diagnosis of a lip swelling

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Introduction: Reticulohistiocytoma (RH) is an uncommon benign mesenchymal tumour with histiocytic proliferation. The mechanism which results in the immune system to react in RH remains poorly understood. Its occurrence in the oral cavity is exceedingly rare, with only a few reported cases in the English literature.

Aim: To present the clinical and pathological findings of an interesting case of RH as a rare diagnosis of a lip swelling.

Results: A 25-year-old healthy Asian male presented with an asymptomatic right-sided lower lip swelling which had been present for two months. Three years previously he had undergone a lip piercing in this region. There was no associated pain, ulceration or bleeding and there were no changes in appearance during this time. Clinical examination revealed a 5mm lump on the right side of the lower lip under the vermillion border and directly adjacent to the piercing. The lump was not actively infected, and the overlying mucosa was of normal appearance. An excisional biopsy was performed under local anaesthetic. Histopathological analysis demonstrated most of the dermis to be replaced by sheets of spindled histiocytes, multi-nucleated giant cells and occasional xanthomatous-like cells with no evidence of atypia. Lesional tissue was negative for desmin CD34, F13a, Melan-A, S-100 and CD1a but diffusely positive for CD68 immunostatin. Further investigation for the potential of foreign body reaction to the piercing was undertaken.

Conclusion: Although the possibility of a juvenile xanthogranuloma was raised, the overall histological appearances were consistent with a diagnosis of a RH. In contrast to multicentric RH, a solitary RH has no associations with arthritis or other systemic lesions. However, the lesion can coexist with certain neoplasms, vasculitis and xanthelasma. Since RH can be clinically challenging to diagnose, due to its resemblance with other skin malignancies (i.e melanoma), surgical excision is the preferred method of management.

Conflict of interests: Nil

159. An evaluation of referrer factors for referrals made to the West Yorkshire Oral Surgery Managed Clinical Network over a 3 year period.

Dr Richard Moore, Lecturer & Specialist in Oral Surgery, Leeds' Dental School

Introduction: Patients referred from primary dental care to hospital-based specialists in high volumes can contribute to significant NHS service pressures. Surprisingly little is understood about what contributes to referral factors.

Aims: To gain new insight into the referral factors from primary dental care by reviewing the West Yorkshire Managed Clinical Network referral pathway data for a 36 month period (2016-2019) for 3 specialties, Oral Medicine, Oral Surgery and Oral & Maxillofacial Surgery.

Methods: Anonymised referrals from the electronic referral management system were collated for analyses.

Results: There were 98,671 referrals within the 36 month period. Of those accepted for triage 76% were directed at oral surgery, with >60% accounted for by exodontia. Ten percent of referrers accounted for 60% of all referrals. Peak referral occurred 5-years after GDC registration

Discussion: The data set demonstrates variation in referrer behaviours despite referral guidance. Additionally, it demonstrates the service demand across 3 specialties for routine referrals. Referral patterns observed in this study suggested possible associations with high and low referral patterns which warrant further research.

Conclusions: The results suggest that there are interesting patterns of referral which may be associated with characteristics of the referrer as well as their patients' needs. Further investigation could inform improved processes and service design, as well as education delivery and workforce development.

144. Management of inferior alveolar nerve and lingual nerve injuries in the UK – A cross-sectional study

Dr Alex Orchard MSc Epidemiology Student & Dentist University of Bristol

Ashni Adatia, Richard Moore, Satheesh Prabhu

Introduction: Post-operative nerve injury following mandibular third molar (M3M) removal is a potential litigious complication risk and a potential source of considerable impact on patients' quality of life if hyperaesthesia occurs. There is suspected geographical disparity, in terms of accessibility, to management options following post-operative nerve injury. It is important for the specialty to know how clinicians are currently managing injuries.

Aim: The aim of this national survey is to identify patient pathways and clinicians' current practices of the management of inferior alveolar nerve (IAN) and lingual injuries following M3M removal.

Objectives: Determine current UK nerve injury pathways after M3M removal and what services clinicians are aware of with active surgical repair and/or psychiatric and psychological support for patients.

Method: A 16-question survey using SurveyMonkey was developed and sent to UK members of three Oral Surgery related societies (ABAOMS, BAOS, BAOMS) from January 2021 to March 2021. It consisted of open free text, binomial and variable scale responses related to the management of IAN and lingual nerve injuries.

Results: 155 clinicians responded to the survey. The average number of M3M removed monthly over the last three years by a clinician was 25. The average number of nerve injuries seen in a clinician's practice within the last three years was three. Over two-thirds of respondents (69.74%) were only somewhat confident, not so confident or not at all confident in the management of patients with post-operative IAN injury. In occurrence of an injury 45% stated they would make an onward referral but when asked "where do you refer to?" many respondents stated just two centres in the UK. Free text options highlighted beliefs of unclear and unestablished pathways for these patients.

Conclusion: Clear national guidance on managing patients with injuries was a commonly desired theme stated by responding clinicians. Access issues nationally to specialist units were also stated.

Conflict of interests: The authors declare that there is no conflict of interest.

128. “[I was] treated more like a dentist than a student”- the role of the dental nurse in dental undergraduates’ skill development.

Miss Emma Robinson Clinical fellow, Newcastle University

Luisa Wakeling, Rachel Green, Chris Penlington

Introduction: The historical view of the dental nurse is somewhat passive, with the literature describing the nursing role as that of a ‘dental housewife’. The role has been viewed with a focus on practical support; surgery preparation, passing instruments and tidying up. This outdated and limited description fails to recognise the wealth of knowledge and experience dental nurses have and the important role they play in patient management. In the context of dental undergraduate teaching, dental nurses working on student clinics are likely to have many more years of clinical experience than the students they support. The close working relationship of the qualified dentist and dental nurse has been examined in the literature. However, the role of dental nurses in undergraduate teaching has not, to our knowledge been explored.

Aim: To explore the role of the dental nurse in the emotional and learning experience of dental undergraduates undertaking oral surgery clinical skill training.

Objectives: This study seeks to gain a deeper understanding of the experience of undertaking oral surgery training as an undergraduate with a specific focus on the role of the dental nurse in supporting this journey.

Method: Final year dental students studying at Newcastle University along with dental nursing staff who work on the oral surgery undergraduate clinic were recruited to the study. Qualitative semi-structured interviews were undertaken to allow exploration of views and experiences in detail. Interviews were conducted over Zoom, recorded and transcribed verbatim. Data collection and analysis was an iterative process following the principles of the constant comparative method.

Results: Semi-structured interviews with dental students and dental nurses provide insights into aspects of extraction skills training and supporting learning. Key areas of interest relate to developing professionalism and confidence, teamwork, patient management along with reassurance and support in this unfamiliar clinical environment.

Conclusion: Far from being a passive presence in the surgery, results highlight the significant role the dental nurse plays in undergraduate students’ development when undertaking surgical tasks for the first time.

Conflict of interests: none

75. An unusual metastatic mass: A rare presentation of oesophageal carcinoma

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Introduction: We present a patient who attended the Oral Medicine department at Bristol Dental Hospital complaining of a 2 month history of a hard swelling affecting the lower labial mucosa. This was subsequently diagnosed as an oral metastasis from an oesophageal cancer. Oral cancer resulting from metastasis of a primary tumour is a rare occurrence, accounting for roughly 1% of all oral cancers. If oral metastases are present, there is also increased likelihood of additional sites of distant metastases being identified, and prognoses for such patients can therefore be poor. In the majority of patients who present with oral metastasis, the primary tumour has already been diagnosed. Identification of an oral metastatic lesion as the initial presentation of malignancy is much more uncommon. On occasion the histopathology from the oral metastasis provides an indication as to where the primary tumour is located. Around 9000 people in the UK are diagnosed with oesophageal cancer each year and oesophageal cancer is the 14th most common cancer in adults in the UK (Cancer Research UK). The overall 5 year survival rate for oesophageal cancer ranges between 4-40% for tumours with associated metastases and localised tumours respectively (Shaheen et al 2017). The stage at which the cancer is detected is the most important factor in determining the prognosis (Lieberman & Fitzgerald, 2009). Patients with oesophageal cancer typically present late in the course of the disease and as such have an associated poor prognosis. Metastases to the oral cavity can occur within the bone or the soft tissues and usually arise as a late presentation of the primary cancer. Common metastatic sites for oesophageal cancer include the lymph nodes, liver and lungs. Oral metastases from oesophageal cancers are scarcely reported in the literature and this presentation highlights that oesophageal malignancy should be considered as a source of oral metastatic disease.

Aim: Highlight that Oesophageal cancer should be considered as a source of oral metastatic disease

Method: We present a patient who attended the Oral Medicine department at Bristol Dental Hospital complaining of a 2 month history of a hard swelling affecting the lower labial mucosa. This was subsequently diagnosed as an oral metastasis from an oesophageal cancer.

Conclusion: Oesophageal cancer should be considered as a source of oral metastatic disease

Conflict of interests: None

15. Examining the association of career stage with personality preferences – a survey of dental core trainees to consultants.

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Introduction: The approach to medical and dental education has transformed over the last decade. Anecdotal evidence also suggests a feeling that trainees of today are “different” to the previous generations. The change in training paradigms could be attributed in part to the generational shift in personality types of current trainees. Historically, Myers Briggs personality profiling of surgeons favoured the Extrovert, particularly the ESTJ sub-type. More recent research has suggested that the majority of current trainees demonstrate the Introvert personality type.

Aim: To explore the respective personality types associated with specialties and grades, and in turn use this information to aid training, pastoral care and team work for the individual and within a group. **Objectives:** To determine the personality types of dental surgeons using the Myers Briggs Type Indicator online survey of specialties and grades across our secondary care dental hospital. To analyse the data obtained to seek trends between specialties, grades and key learning points.

Method: A Myers Briggs Type Indicator was applied to assess the personality preferences of DCTs, registrars, middle grades and consultants of different dental specialties across the hospital.

Results: The majority of staff that participated in the survey were dental core trainees and specialty registrars. The results suggested that there was a spread of results among the different personality types. Sensing and judging personality preferences were commonly expressed which has positive association with the healthcare profession.

Conclusion: Our cohort analysis indicated variation in personality type between specialties and grades. These results are advantageous in determining approach to training and teamwork.

Conflict of interests: None

125. 3D guided early loading of implants in reconstructed severely atrophic maxillary bones

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Introduction: Atrophic ridges have long been a challenge for restorative rehabilitation. Most severe atrophic cases require major reconstruction, with bony reconstruction and grafts. Surgical and grafting techniques have improved in the last decade with the introduction of new technology.

Aim: To show prognostic outcome after 3D guided implant placement and 3D planned early loaded implant supported dental rehabilitation in major reconstructed maxillary bones.

Objectives: To analyse patients with atrophic ridges that underwent major reconstruction with bone grafting, osteotomy or osteodistraction, followed by 3D planning and 3D guided implant placement with immediate prosthesis early loading protocol at 4 months after reconstructive procedure.

Method: Inclusion criteria were class V-VI edentulous ridges, non-smokers, and motivated patients. Pre-operative protocol involved medical assessment, radiographic examination, stabilisation of oral disease, pre-surgical planning with set up on models and placement of temporary palatal mini-implants to support a provisional prosthesis if needed. Surgical and rehabilitation protocol involved major bone grafting; 3-month wait to include CBCT and 3D planning; computer guided implant placement and immediate loading with temporary prosthesis 4 months after major reconstruction; 8–12-month bone healing with provisional prosthesis; followed by definitive prosthesis.

Results: 61 patients (40 females, 21 males), with ages ranging from 45–68, were treated. 61 major reconstructive procedures were undertaken, and 470 implants placed (280 maxillary, 190 mandibular). 18-month implant failure rates were evaluated. Out of the 470 implants placed 1.1% failed (3 maxillary, 2 mandibular).

Conclusion: It could be deemed that using 3D planning to early load a major reconstruction and bone graft with implants and a prosthesis at 4 months was predictable in very selected patients. Covering the graft meant less risk of infection and losing the graft. With this method treatment time could be reduced.

Conflict of interests: None

47. Robotic stroking on the face and forearm: touch satiety and effects on mechanical pain

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Introduction: Slow stroking touch is generally perceived as pleasant and reduces thermal pain. However, the tactile stimuli applied tend to be short lasting and typically applied to the forearm.

Aim: To compare the effects of a long-lasting brushing stimulus applied to the facial region and the forearm on pressure pain thresholds (PPT) taken on the hand.

Objectives: To evaluate measurements of touch satiety and concurrent mechanical pain thresholds of the hand.

Method: 24 participants were recruited and randomised to receive continuous stroking, by means of a robotic stimulator, at C-tactile (CT) favourable (3 cm/s) and non-favourable (30 cm/s) velocities applied to the right face or forearm. Ratings of touch pleasantness and unpleasantness as well as pressure pain thresholds from the hypothenar muscle of the right hand were collected at the start of stroking and once per minute for 5 minutes.

Results: A reduction in PPTs (increased pain sensitivity) was observed over time ($P < 0.001$). However, the increase in pain sensitivity was less prominent when the face was stroked compared to the forearm ($P = 0.001$). Continuous stroking resulted in a significant interaction between region and time ($P = 0.008$) on pleasantness ratings, with a decline in ratings observed over time for the forearm, but not on the face. Unpleasantness ratings were generally low.

Conclusion: We observed touch satiety for 5 minutes of continuous robotic brushing on the forearm confirming previous studies. However, we did not observe any touch satiety for brushing the face. Mechanical pain sensitivity, measured in the hand, increased over the five-minute period but less so when paired with brushing on the face than with brushing on the forearm. The differential effects of brushing on the face and forearm on touch satiety and pain modulation may be by virtue of the differences in the emotional relevance and neuronal pathways involved.

Conflict of interests: None

14. Supplementary Soft and/or Hard Tissue Procedures Around Dental Implants - a Systematic Review and Meta-Analysis

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Aim: The aim of this systematic review is to assess the efficacy of soft (STA) and/or hard tissue augmentation (HTA) conducted as supplementary augmentative procedure around dental implants regarding clinical, biological, and patient related parameters.

Method: Two independent reviewers have conducted a systematic search (including critical appraisal) of four online databases for publications on clinical studies investigating the efficacy of STA+/-HTA around dental implants in systemically healthy patients with a minimum follow up of 1 year. This was supplemented by manual search of relevant journals of the past 20 years and the reference list of included publications. Marginal bone level (MBL) was chosen as main outcome. A variety of other parameters were assessed as additional outcomes.

Results: In total we were able to identify 42 eligible publications reporting on 35 studies describing 41 relevant comparisons. The studies exhibited a wide heterogeneity and therefore, only two meta-analyses were performed.

Conclusion: i) MBLs are not improved by STA using free gingival grafts or collagen matrix with the intention to increase width of keratinized mucosa, but may improve additional outcomes. ii) STA volume augmentation may improve MBL and additional outcomes. iii) HTA does not improve MBLs or additional outcomes in delayed/late implantation. In immediately placed implants, on the other hand, HTA improves a variety of additional outcomes. iv) STA in combination with HTA does not improve MBL compared to HTA alone, but additional outcomes – especially aesthetic measures like mid-facial recession – are improved when HTA is supplemented by STA. ‘Bone stands hard, but tissue is the guard.’: Overall, peri-implant marginal bone levels are not influenced by HTA/STA aiming to increase width of keratinized mucosa, but may be influenced by STA aiming to increase soft tissue thickness. The data suggests a bi-directional relationship of peri-implant soft and hard tissue.

Conflict of interests: None

21. The impact of the waferless osteotomy approach, using patient specific guides and plates in orthognathic surgery: a systematic review

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Introduction: Novel approaches in orthognathic surgery now aim to eliminate the surgical wafer entirely, with the use of individualised osteotomy cutting guides and patient-specific CAD-CAM osteosynthesis plates to reposition the maxilla independently of the mandible.

Aim: The primary aim of this systematic review was to determine the accuracy of waferless osteotomy procedures utilised in orthognathic surgery with the secondary aim to determine the cost-effectiveness of the procedure.

Objectives: The aim of this systematic review is to evaluate available evidence on the efficacy of waferless orthognathic osteotomies, highlighting how waferless procedures are performed and to determine possible benefits and limitations.

Method: This systematic review was conducted following the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta Analyses statement. Studies included randomised controlled trials, systematic reviews, cohort studies, case series, case reports and other retrospective studies. An initial literature search was conducted on the databases PubMed and Scopus, with PRISMA guidelines followed. Initially 4149 articles were identified twelve of which met the desired inclusion criteria. The articles included were critically appraised and details including the author, year published, type of study and level of evidence, number of cases, type of surgery and method of constructing the surgical cutting guide were recorded as part of this systematic review. Results: A total of 143 patients included in this review had orthognathic surgery without the use of a surgical wafer. Eleven of the studies used surgical cutting guides along with customised surgical plates to eliminate the surgical wafer and one study used pre-bent locking plates instead of customised plates. The surgical accuracy was assessed by comparing the position of the pre-determined landmarks on the pre and post- operative images. Many of the authors concluded that the waferless osteotomy procedure produced accurate surgical results however there was contrasting opinions on the cost efficiency of the procedure.

Conclusion: The results found from this systematic review are promising as the waferless osteotomy procedure has produced accurate post-operative results. Due to the lack of published randomised controlled trials, current evidence is not strong enough to recommend the use of surgical cutting guides and customised/pre-bent plates for orthognathic surgery.

Conflict of interests: None

134. Unusual lip tumours: a case series

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Introduction: The majority of isolated persistent lip swellings are attributed to mucocoeles. However neoplasms originating in the minor salivary glands must be included in the differential diagnoses, particularly with upper lip swellings. Benign pleomorphic adenomas are the most frequent neoplasm involving the labial mucosa however, it is important to be aware that other benign and malignant tumours may also develop in the lips.

Aim: To demonstrate the rare and unusual neoplasms that may present in the lip.

Method: Retrospective review of Oral and Maxillofacial Pathology reports from the last five years identified eight unusual neoplasms presenting within the labial mucosa. Clinical case note review was conducted of the identified patients. Data collected included patient demographics, presenting complaints, medical and social histories, differential and histopathological diagnosis and treatment.

Results: Eight patients between the ages of 8 and 73 years old were identified. Clinically, all lesions were described as well-defined submucosal swellings, however the size ranged from 2mm to 15mm. Common differential diagnoses from clinical appearance included mucocoele and lipoma. The histopathological diagnoses of these cases included two cases of schwannoma, and one case each of basal cell adenoma, papillary cystadenoma, canalicular adenoma, granular cell tumour and myxoid neurothekeoma. One malignant secretory carcinoma was also identified in a 14-year-old patient. All lesions were excised and kept under review post-operatively, with the malignant salivary neoplasm requiring a second surgery to gain complete excision of the lesion with clear margins.

Conclusion: This review demonstrates the interesting and unusual pathologies that may arise within the labial mucosa tissue. Furthermore, it highlights the importance of performing biopsy of persistent swellings in both adult and paediatric patients. Whilst the majority of lesions are benign, surgical excision and histopathological analysis is essential to confirm the diagnosis. Although rare, malignant minor salivary gland tumours can also occur within labial mucosa and an early diagnosis and surgical removal can significantly improve prognosis.

Conflict of interests: nil